

Antioxidant and anticancer activity of novel derivatives of 3-[(4-methoxyphenyl)amino]propanehydrazide

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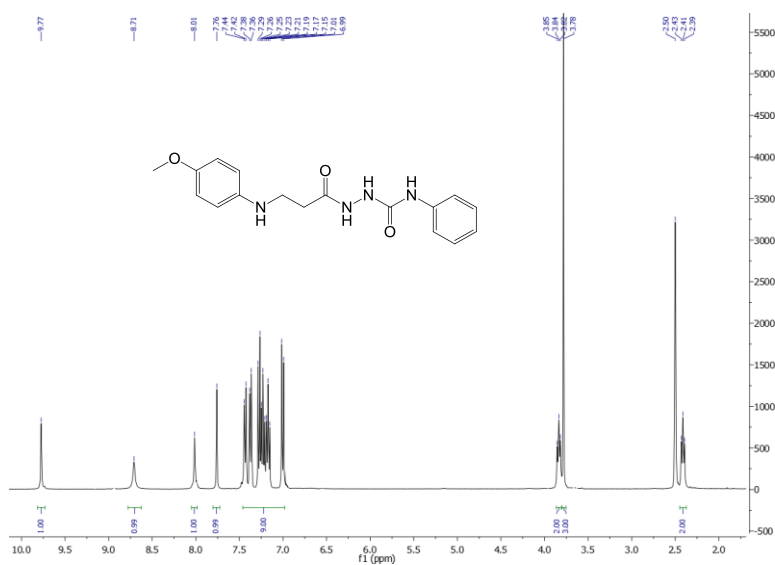


Figure S1. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 2

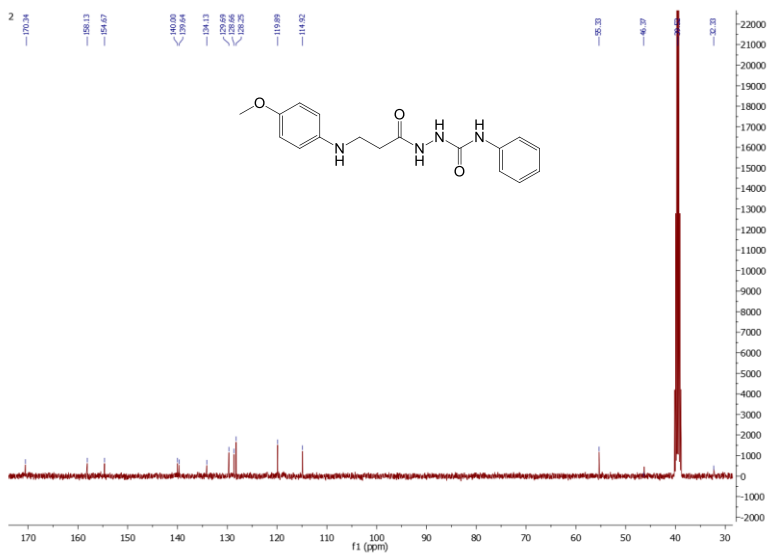


Figure S2. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 2

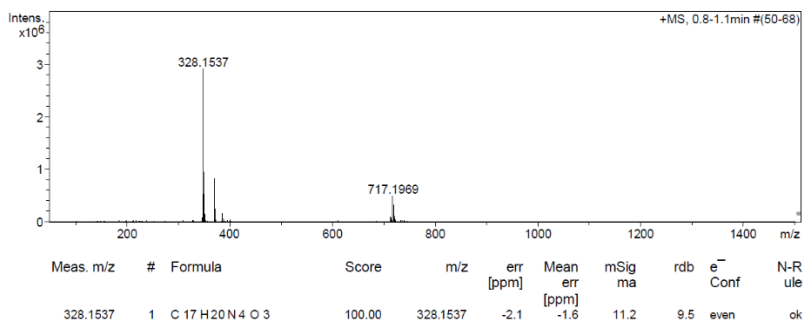


Figure S3. HRMS spectrum of 2

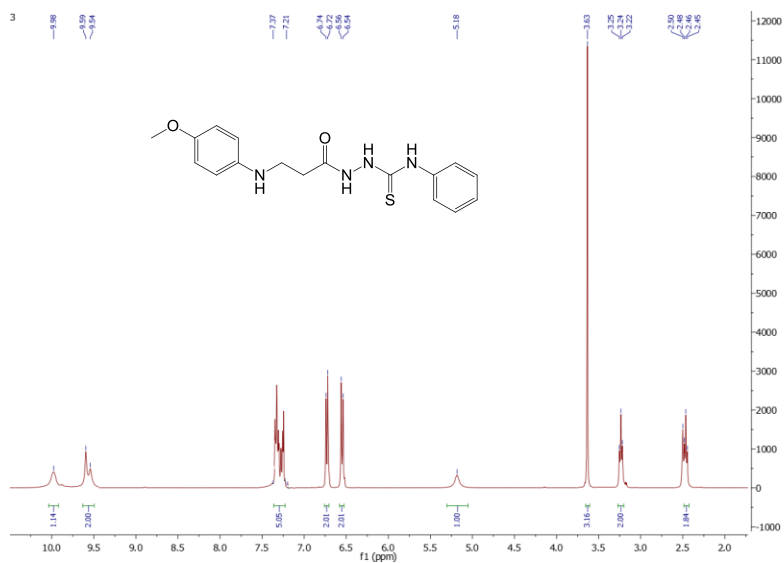


Figure S4. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **3**

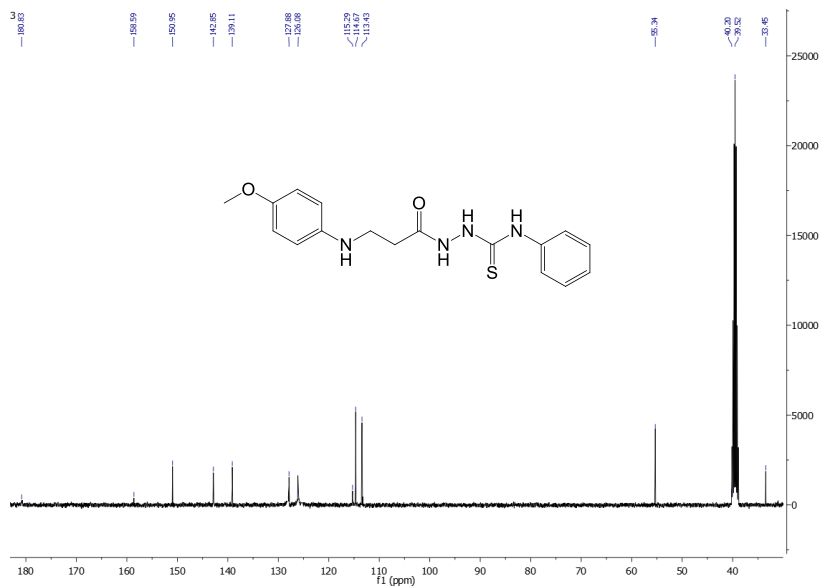


Figure S5. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **3**

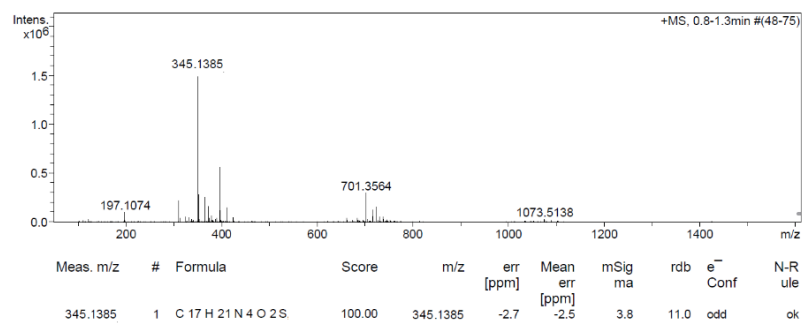
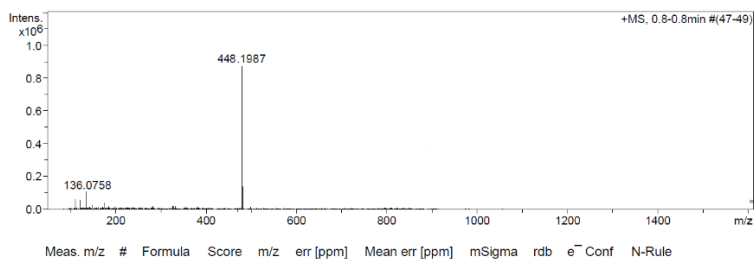
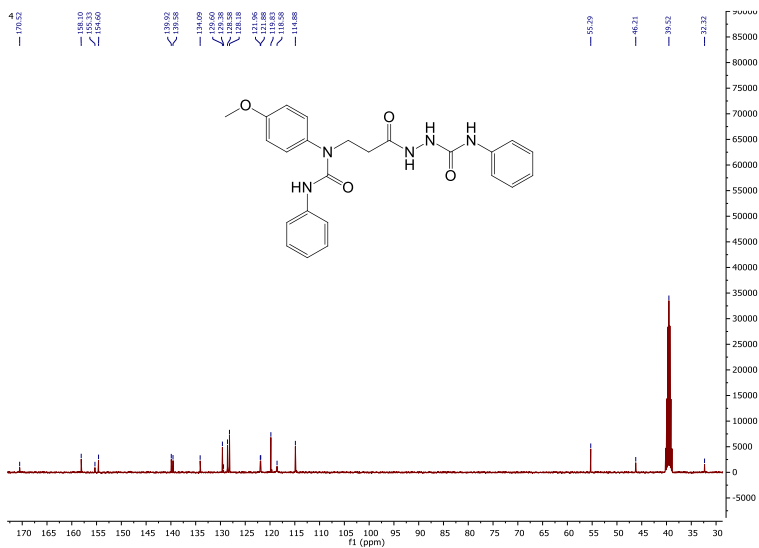
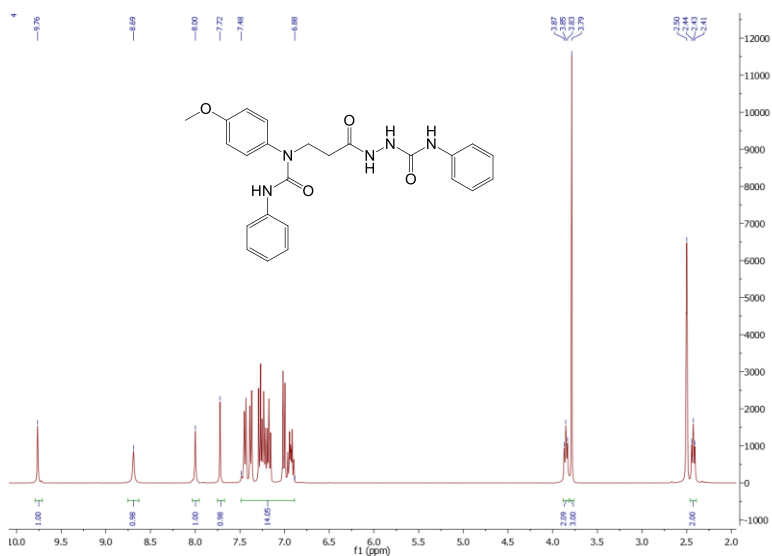


Figure S6. HRMS spectrum of **3**



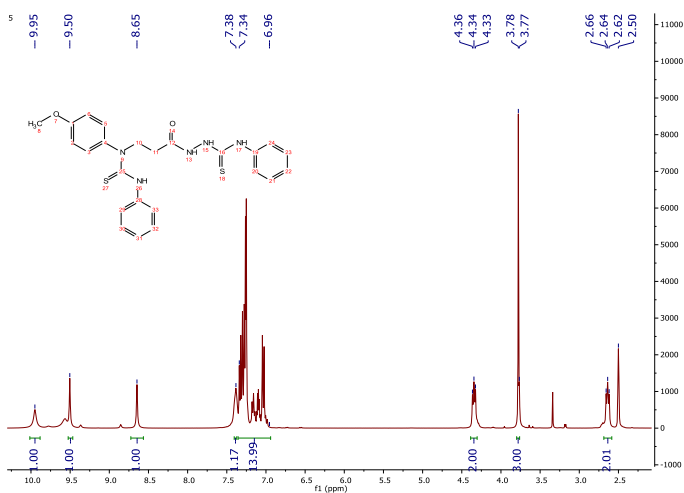


Figure S10. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 5

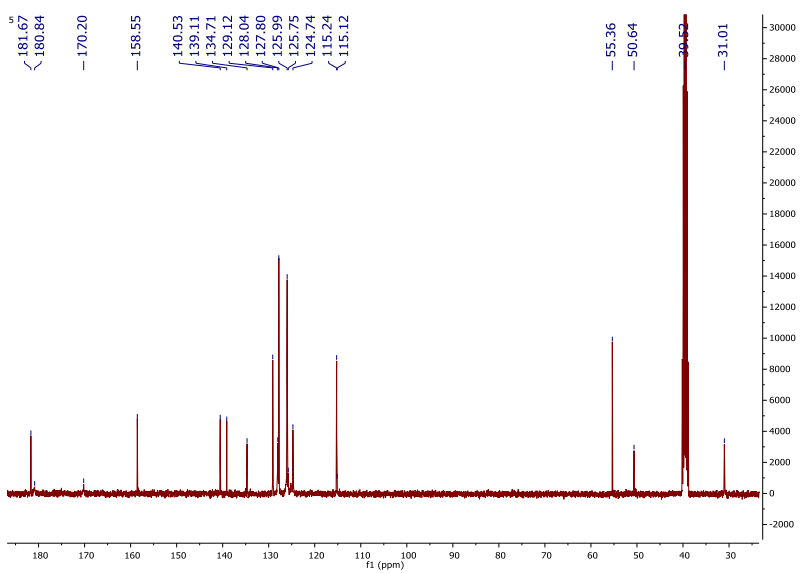


Figure S11. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 5

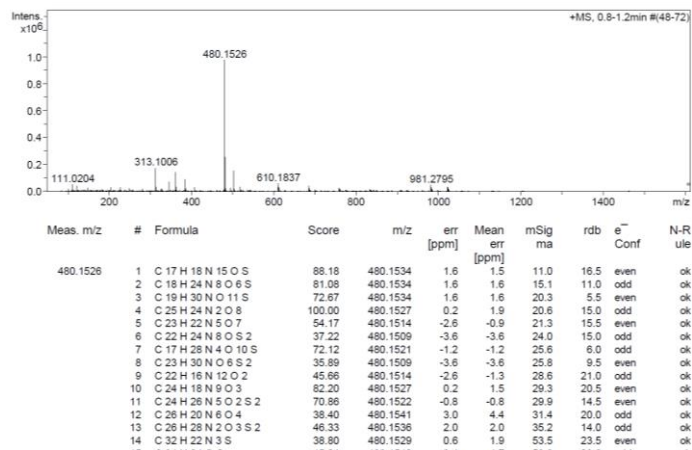


Figure S12. HRMS spectrum of 5

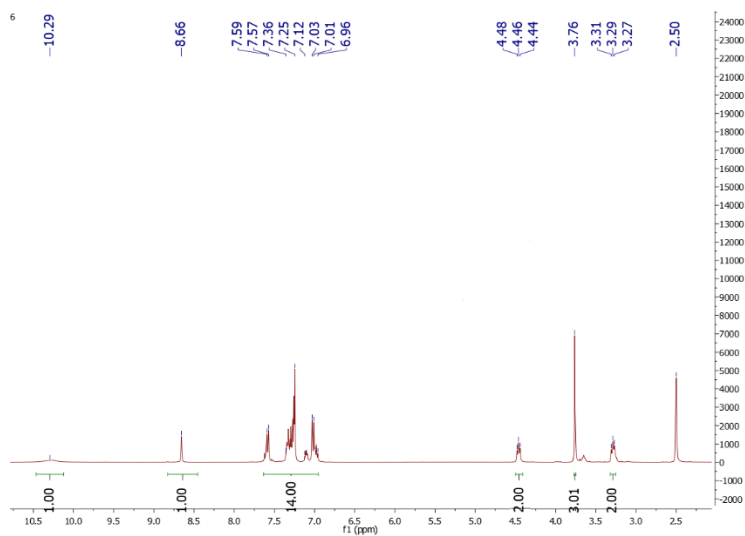


Figure S13. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **6**

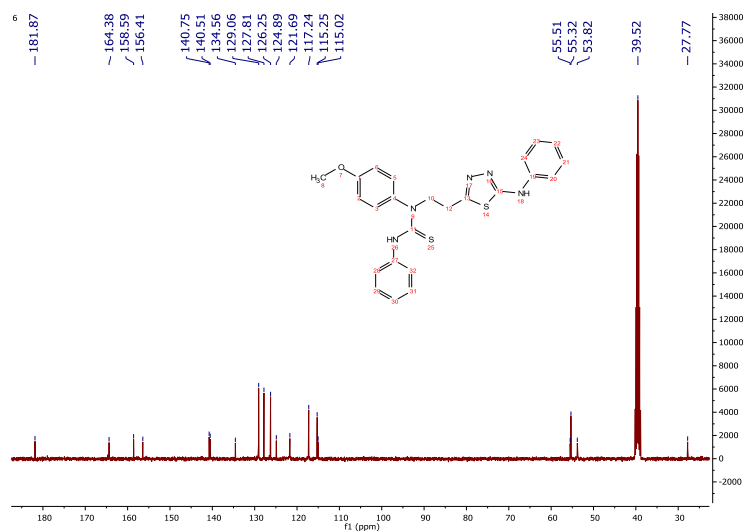


Figure S14. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **6**

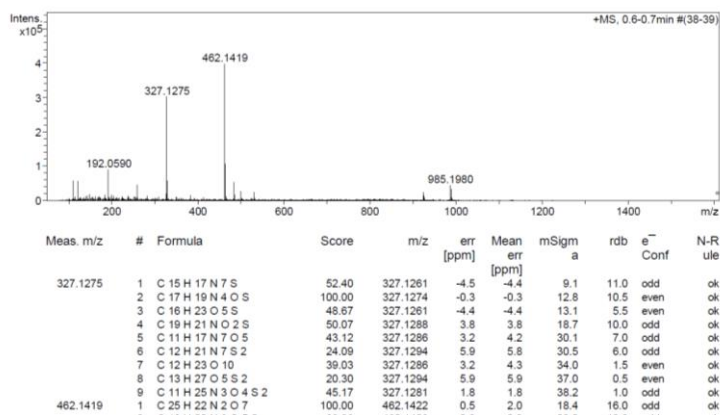


Figure S15. HRMS spectrum of **6**

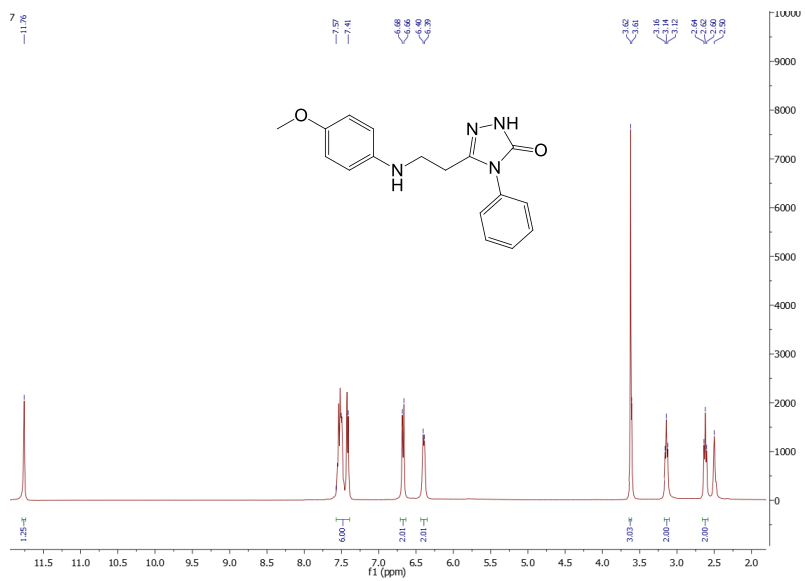


Figure S16. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 7

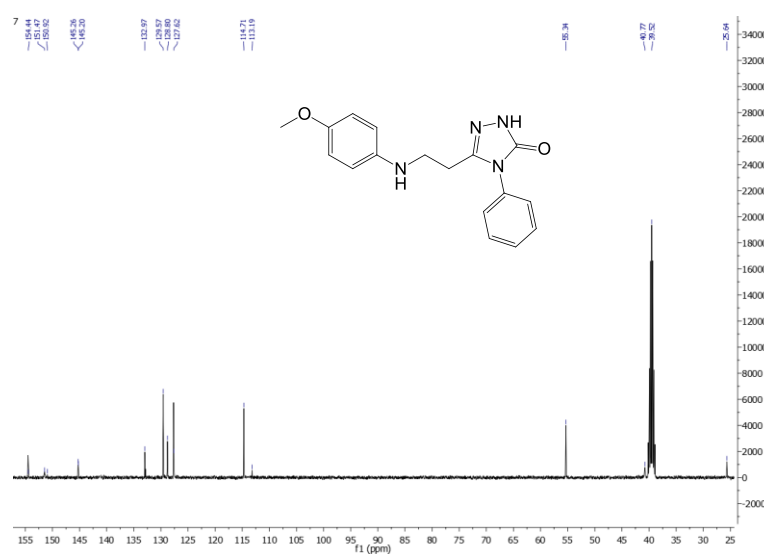


Figure S17. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 7

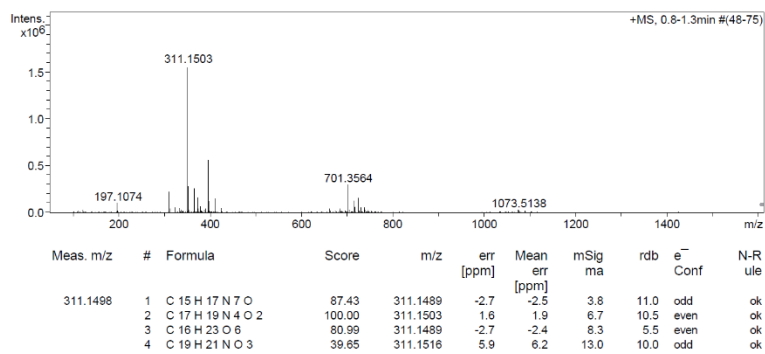


Figure S18. HRMS spectrum of 7

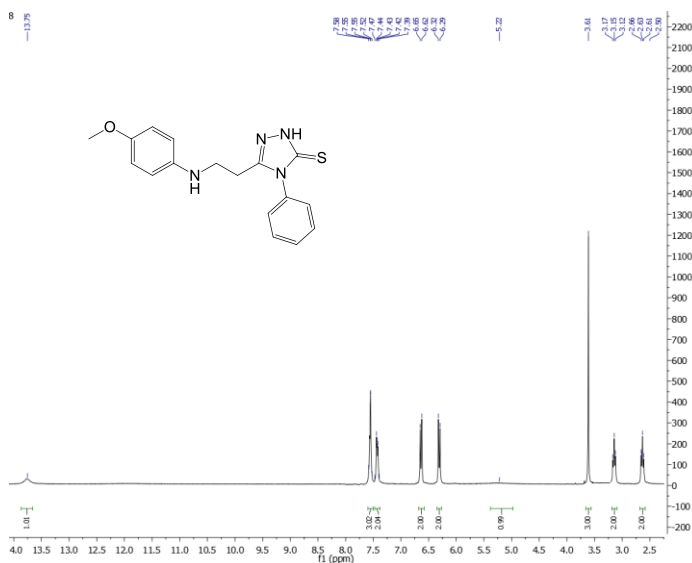


Figure S19. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 8

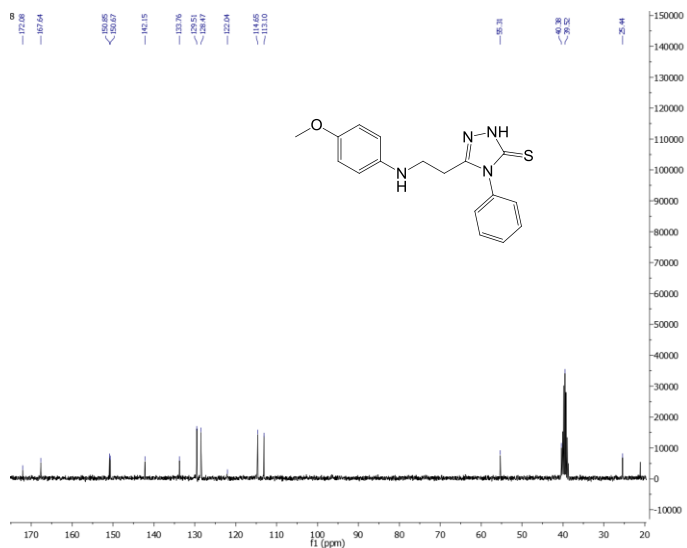


Figure S20. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 8

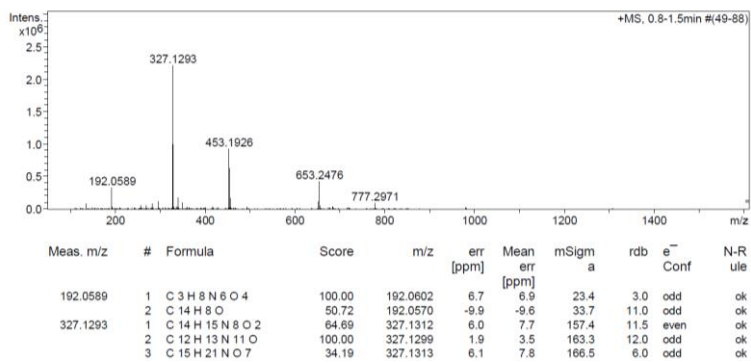


Figure S21. HRMS spectrum of 8

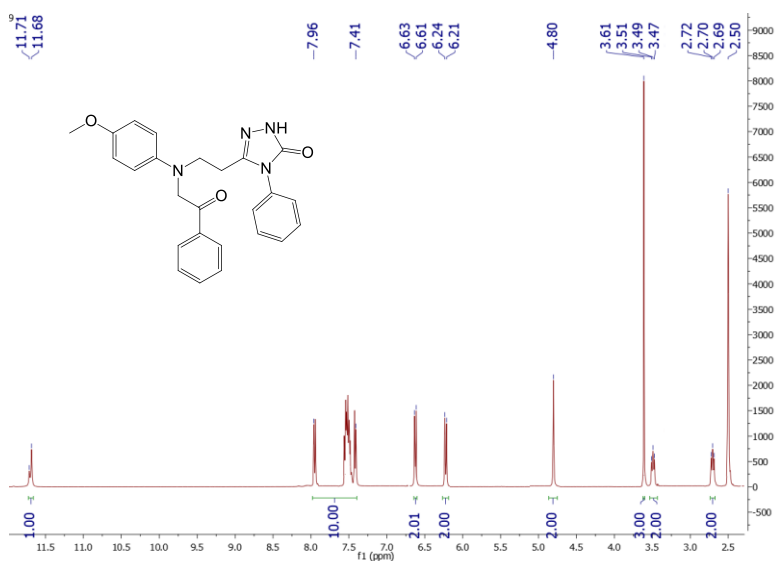


Figure S22. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **9**

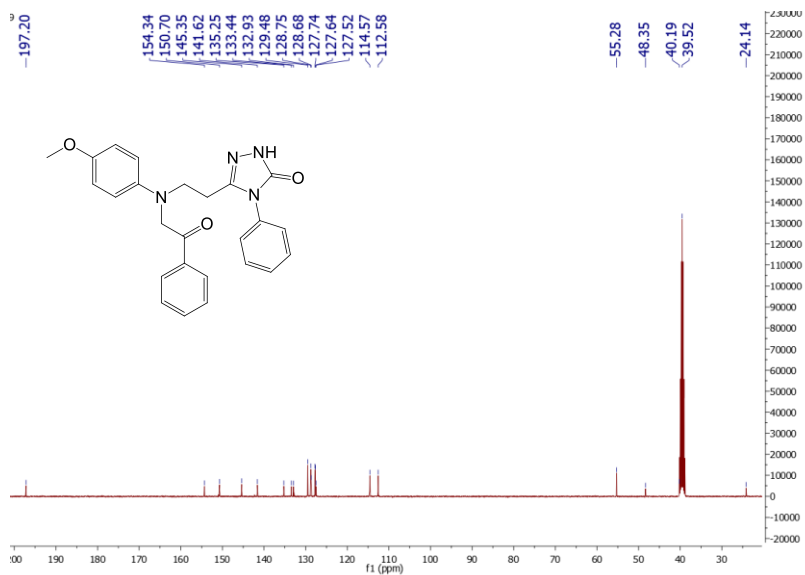


Figure S23. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **9**

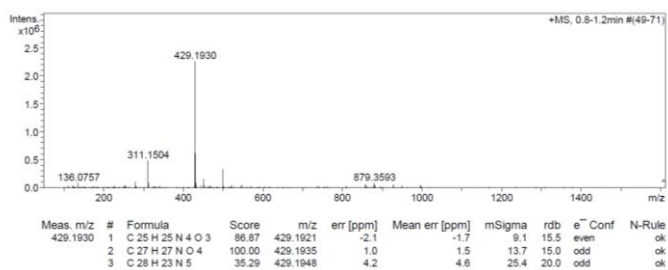


Figure S24. HRMS spectrum of **9**

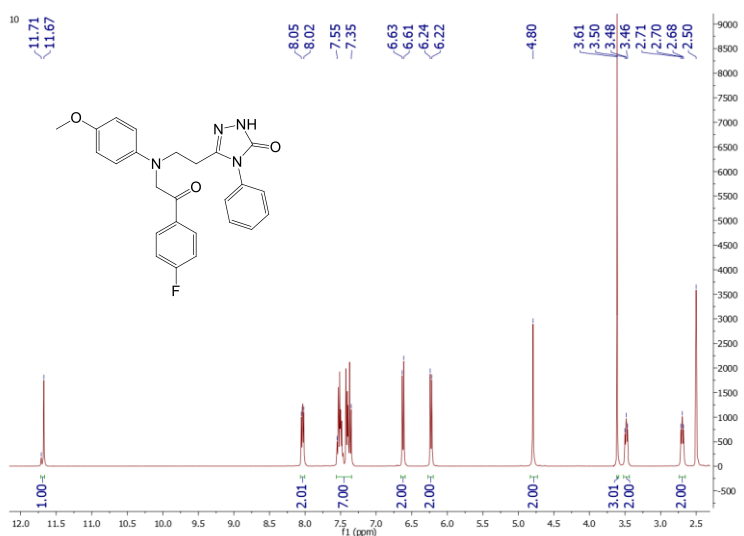


Figure S25. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **10**

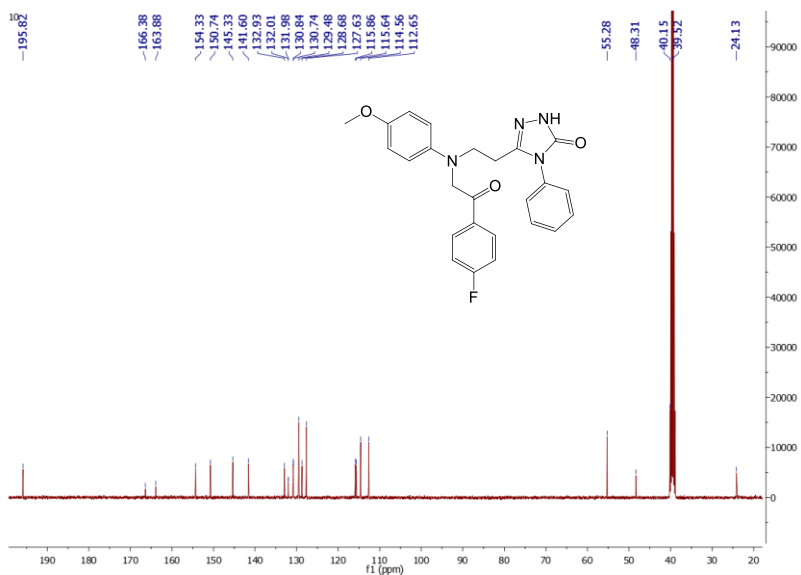


Figure S26. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **10**

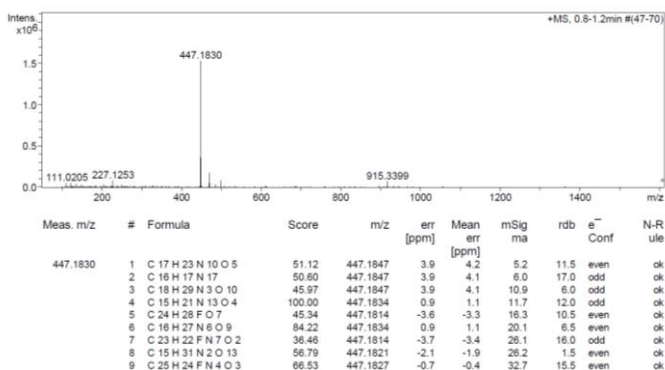


Figure S27. HRMS spectrum of **10**

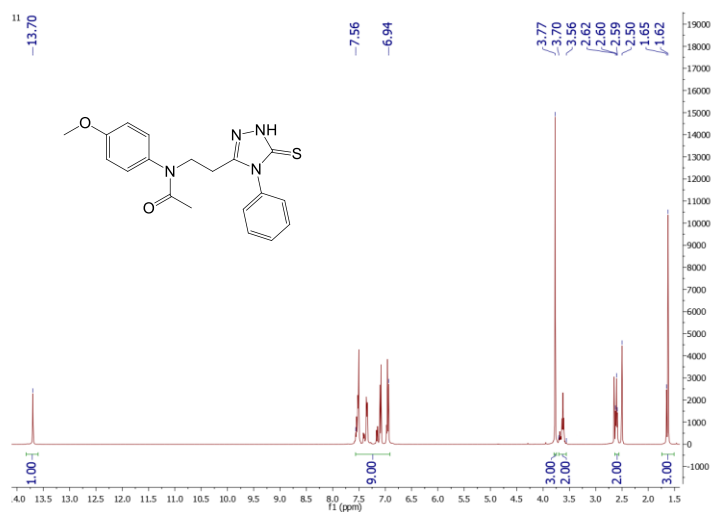


Figure S28. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 11

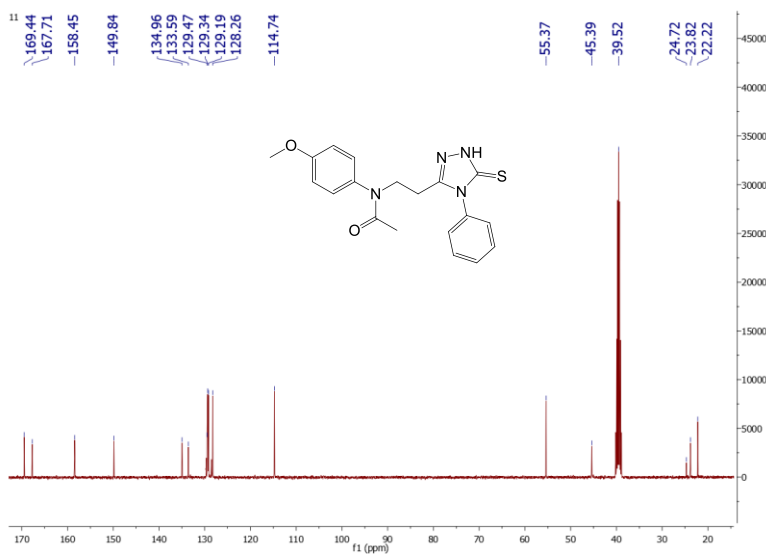


Figure S29. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 11

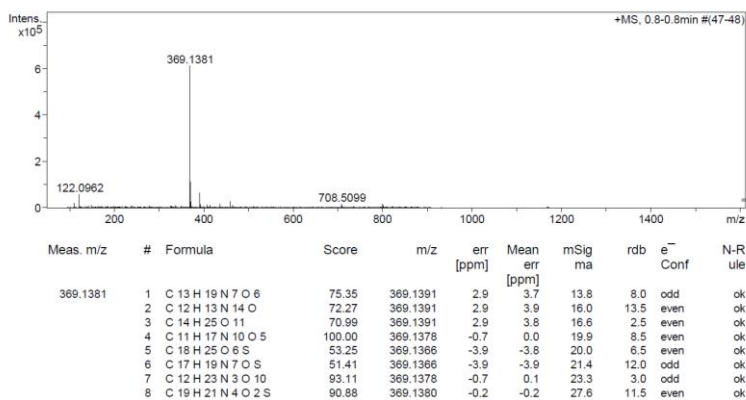


Figure S30. HRMS spectrum of 11

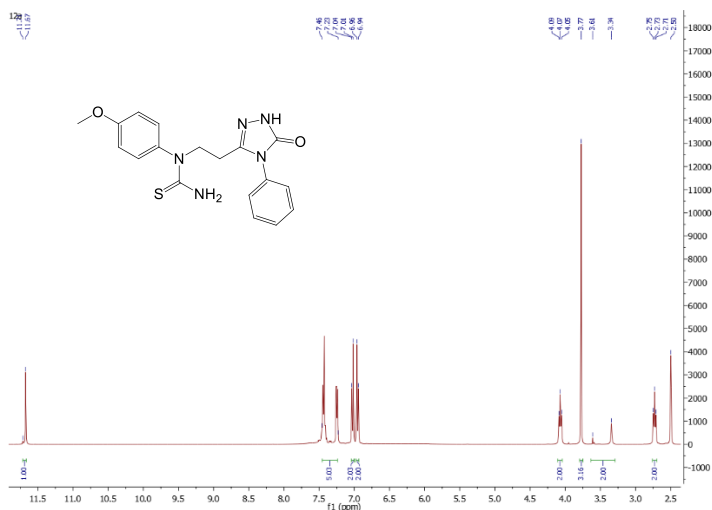


Figure S31. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 12a

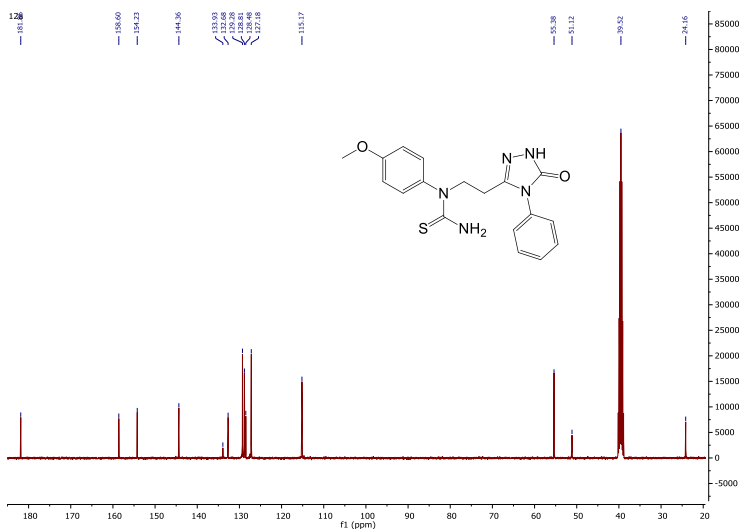
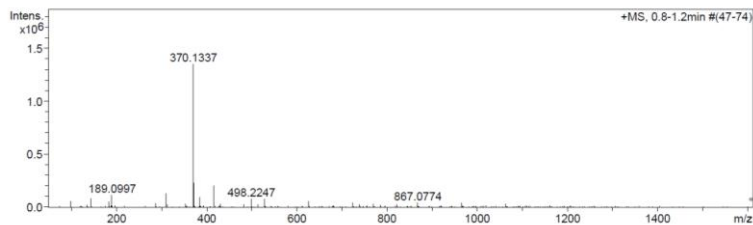


Figure S32. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 12a



Meas. m/z	#	Formula	Score	m/z	err [ppm]	Mean err [ppm]	mSig	rdb	e ⁻ Conf	N-R uler
370.1337	1	C ₁₄ H ₂₀ N ₅ O ₇	46.35	370.1357	5.4	6.2	5.3	7.5	even	ok
	2	C ₁₂ H ₁₈ N ₈ O ₆	100.00	370.1344	1.8	2.5	9.8	8.0	odd	ok
	3	C ₁₃ H ₂₄ N ₁₀	94.36	370.1344	1.8	2.6	12.7	2.5	even	ok
	4	C ₁₃ H ₁₄ N ₁₂ O ₂	40.21	370.1357	5.4	6.3	13.2	13.0	odd	ok
	5	C ₁₁ H ₁₂ N ₁₅ O	92.47	370.1344	1.8	2.1	14.0	13.5	even	ok
	6	C ₁₀ H ₁₆ N ₁₁ O ₅	87.80	370.1330	-1.9	-1.1	15.8	8.5	even	ok
	7	C ₁₁ H ₂₂ N ₄ O ₁₀	81.79	370.1330	-1.8	-1.1	19.3	3.0	odd	ok
	8	C ₁₇ H ₂₄ N ₆ S	36.67	370.1319	-5.0	-4.9	23.2	6.5	even	ok
	9	C ₁₆ H ₁₈ N ₈ O ₅	35.14	370.1319	-5.0	-4.9	24.9	12.0	odd	ok
	10	C ₁₈ H ₂₀ N ₅ O ₂ S	66.23	370.1332	-1.4	-1.3	31.1	11.5	even	ok

Figure S33. HRMS spectrum of 12a

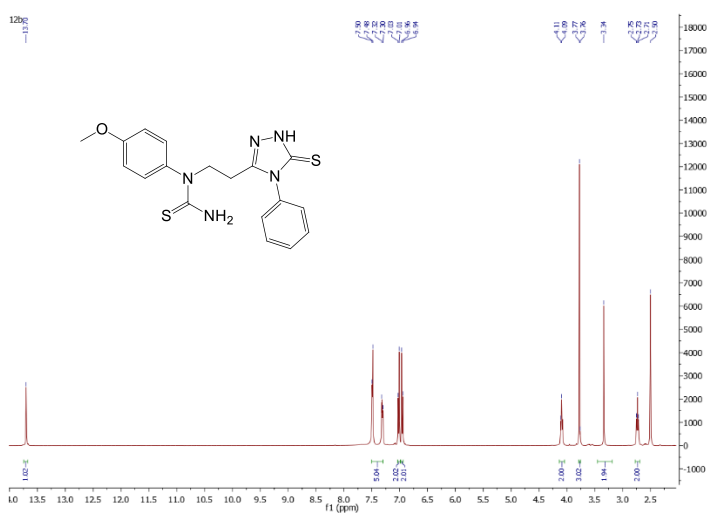


Figure S34. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **12b**

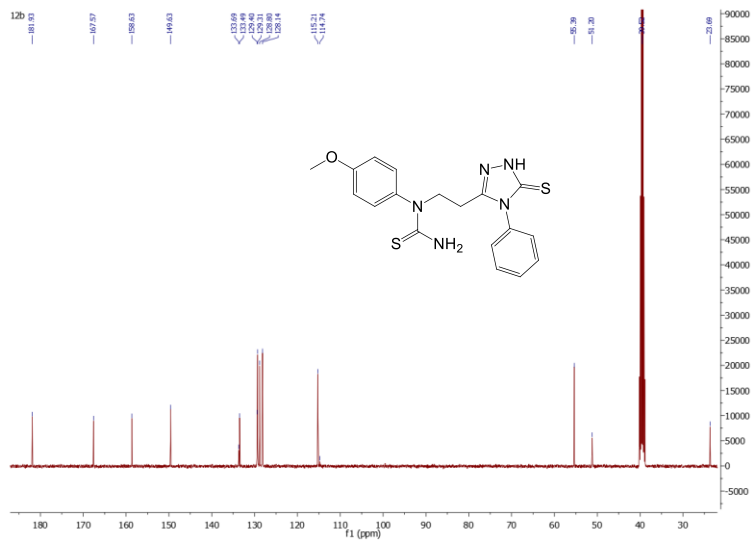


Figure S35. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **12b**

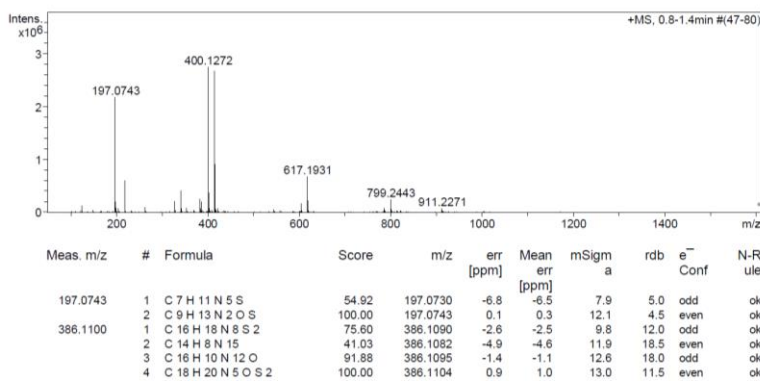


Figure S36. HRMS spectrum of **12b**

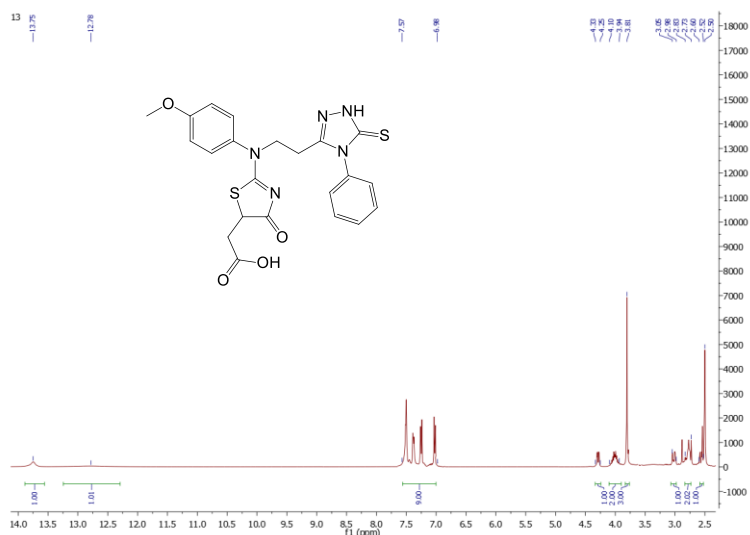


Figure S37. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **13**

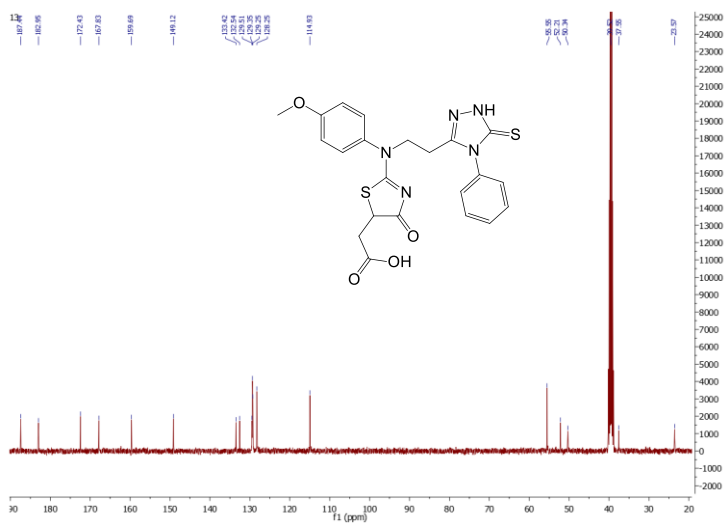


Figure S38. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **13**

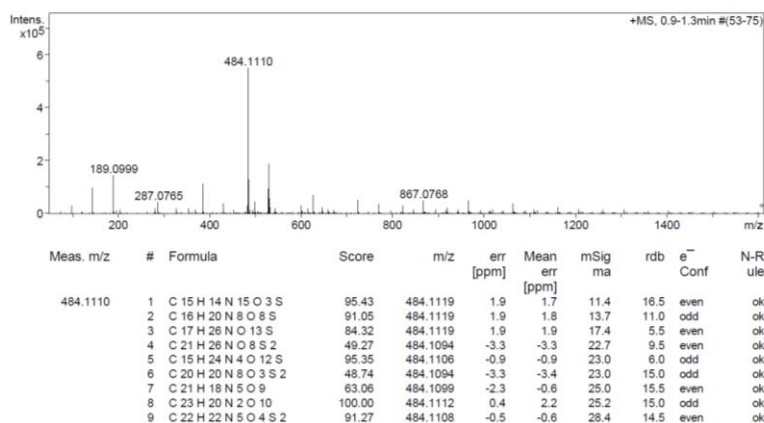


Figure S39. HRMS spectrum of **13**

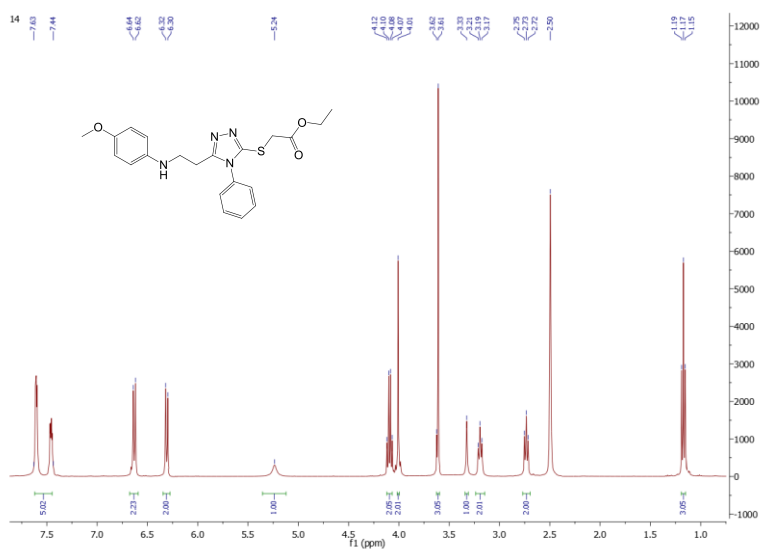


Figure S40. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 14

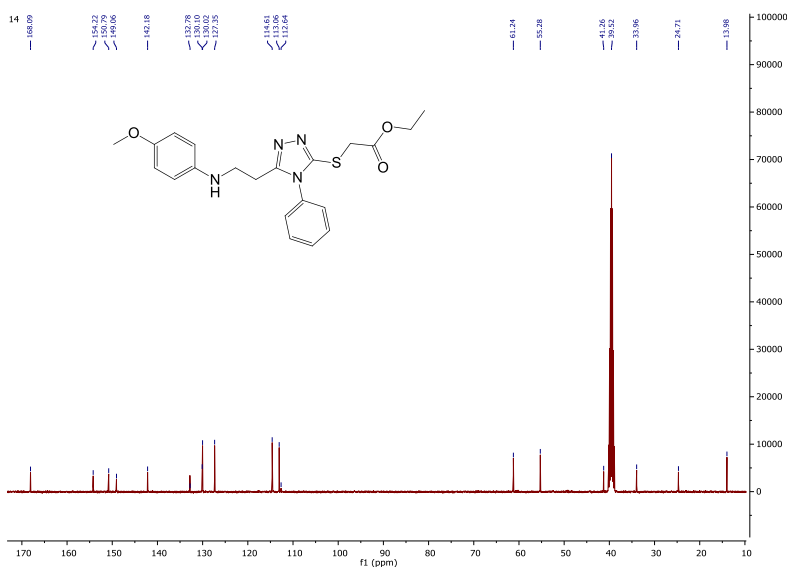


Figure S41. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 14

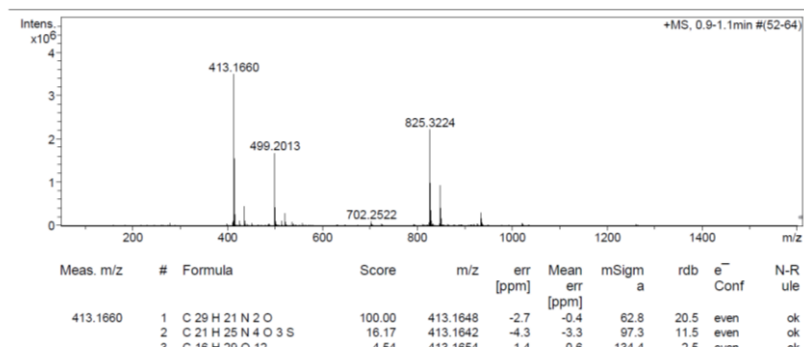


Figure S42. HRMS spectrum of 14

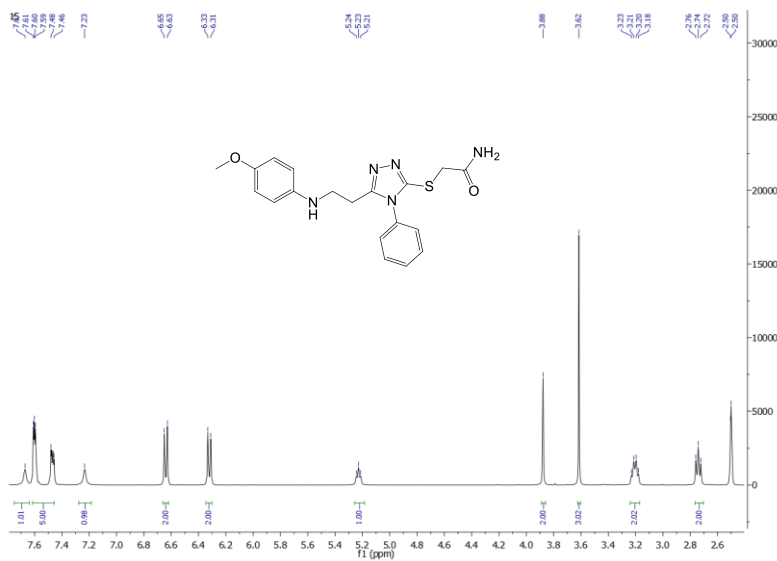


Figure S43. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 15

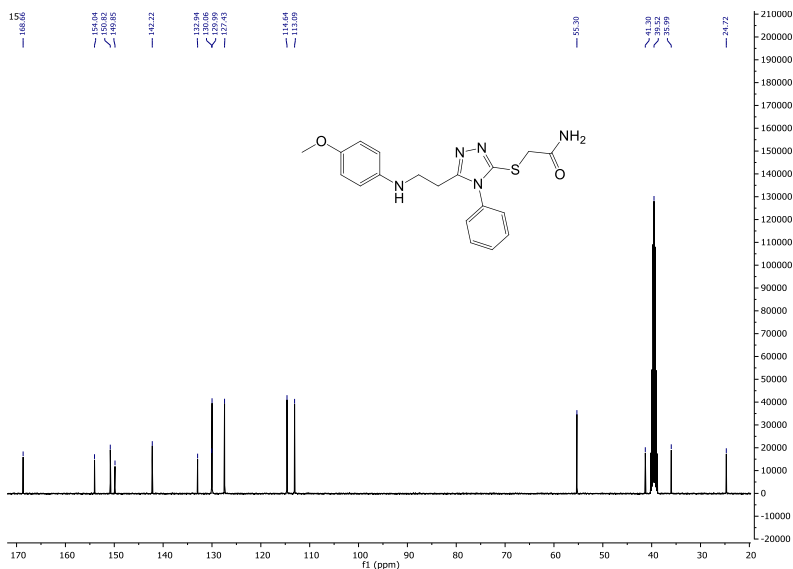


Figure S44. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 15

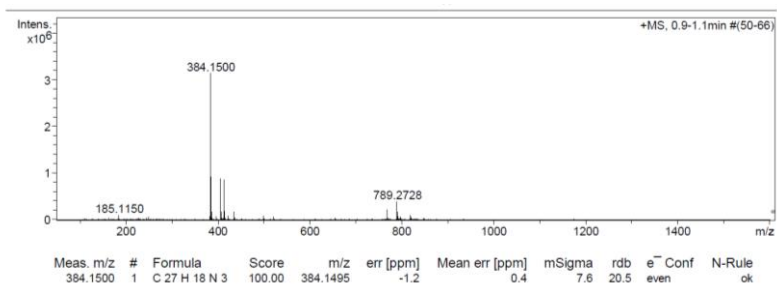


Figure S45. HRMS spectrum of 15

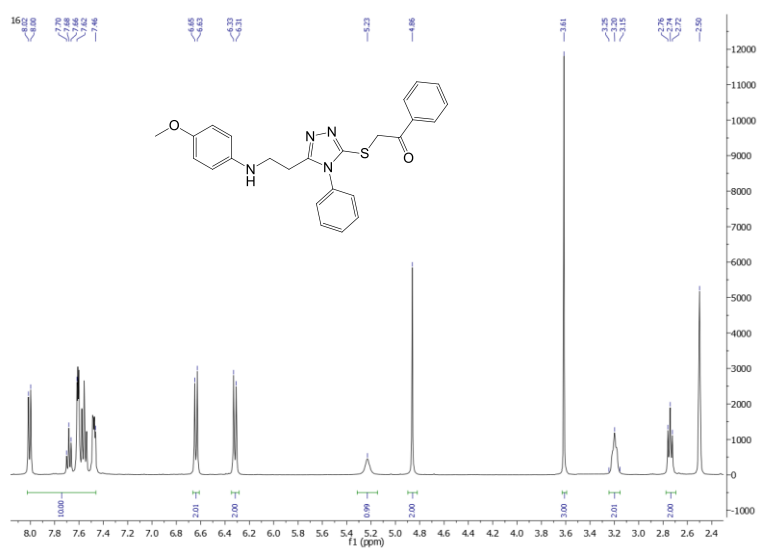


Figure S46. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 16

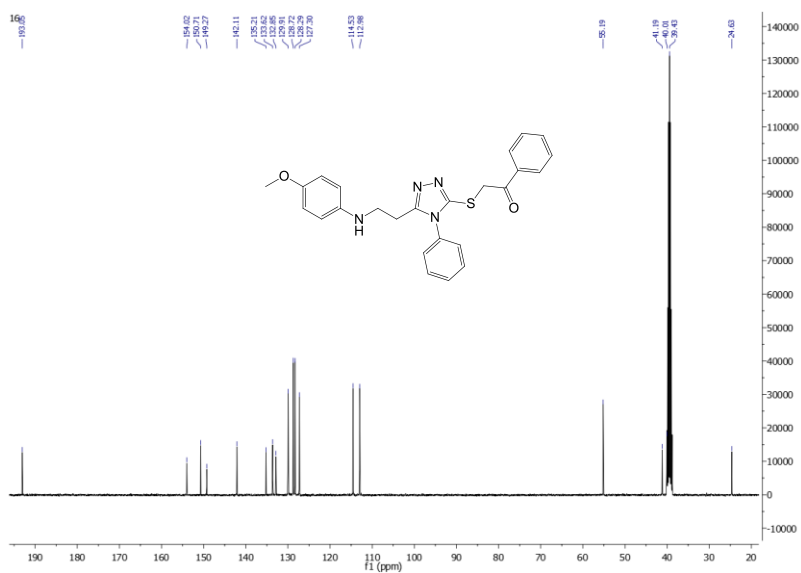


Figure S47. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 16

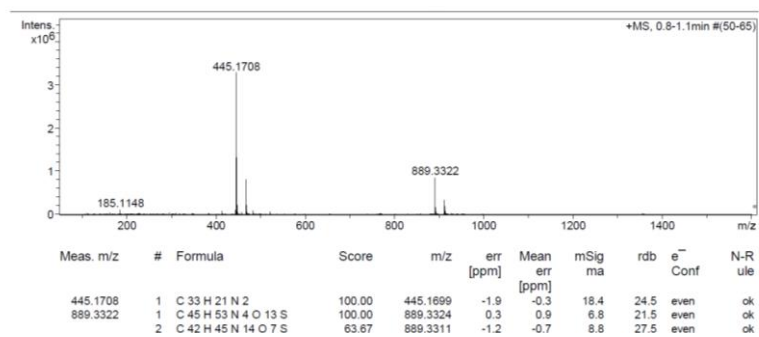


Figure S48. HRMS spectrum of 16

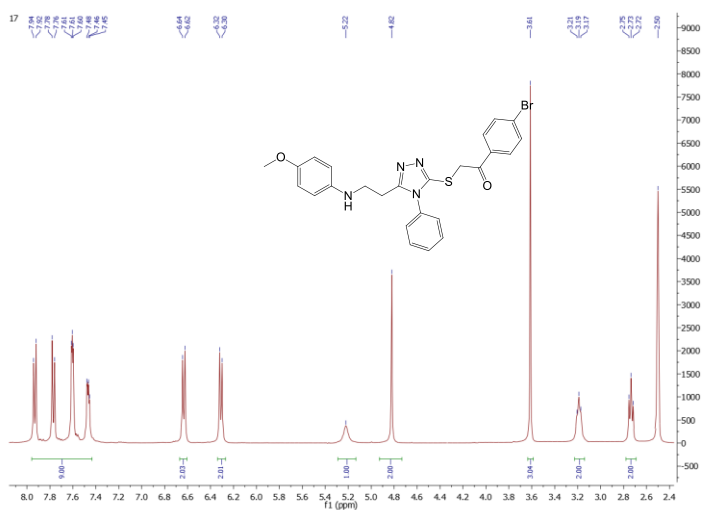


Figure S49. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 17

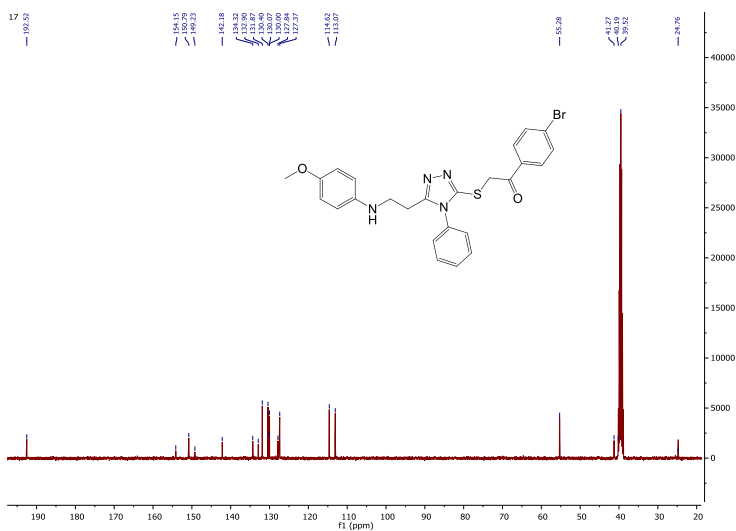


Figure S50. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 17

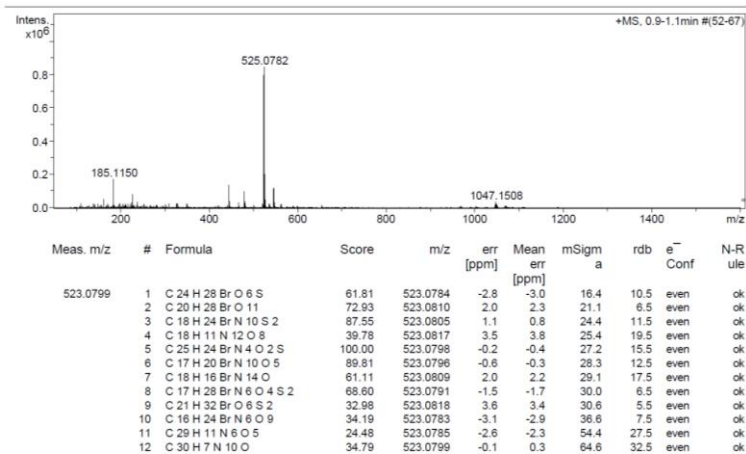


Figure S51. HRMS spectrum of 17



Figure S52. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 18

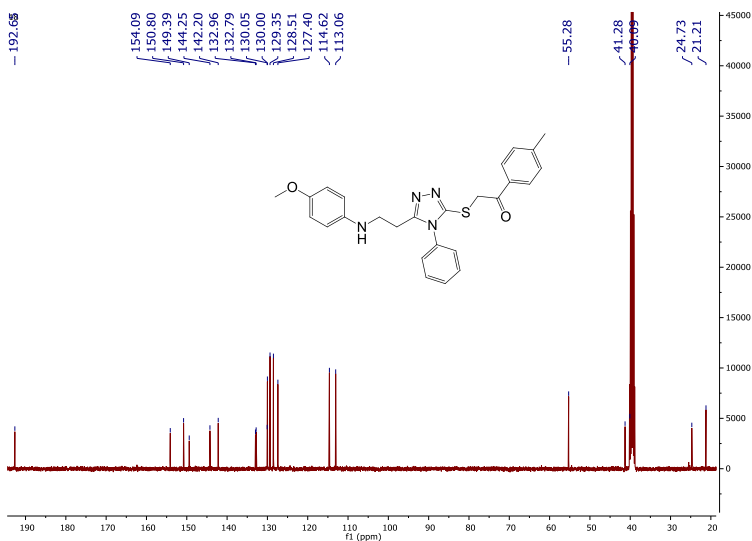


Figure S53. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 18

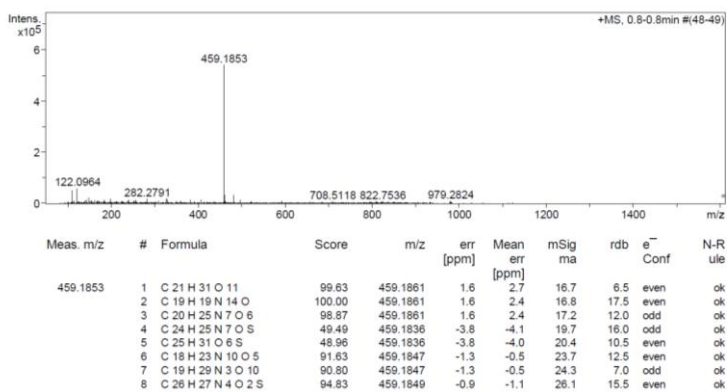


Figure S54. HRMS spectrum of 18

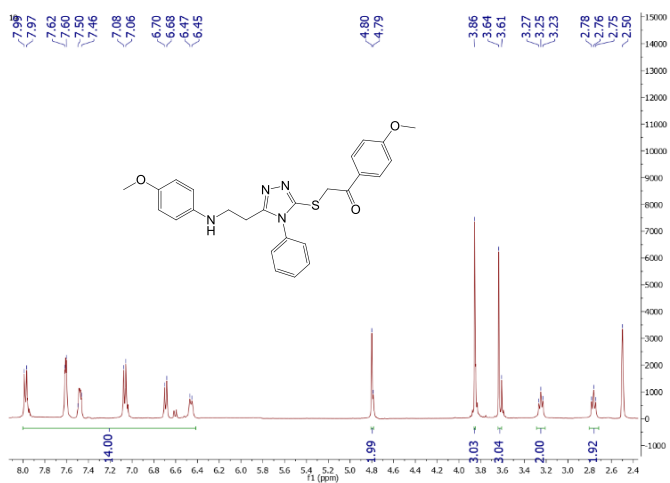


Figure S55. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **19**

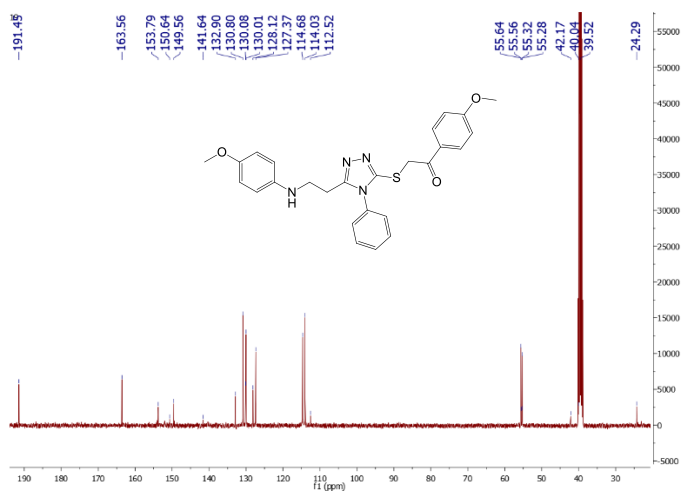


Figure S56. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **19**

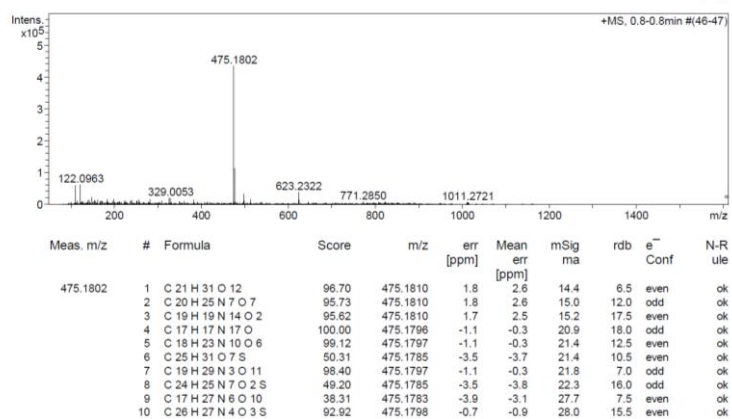


Figure S57. HRMS spectrum of **19**

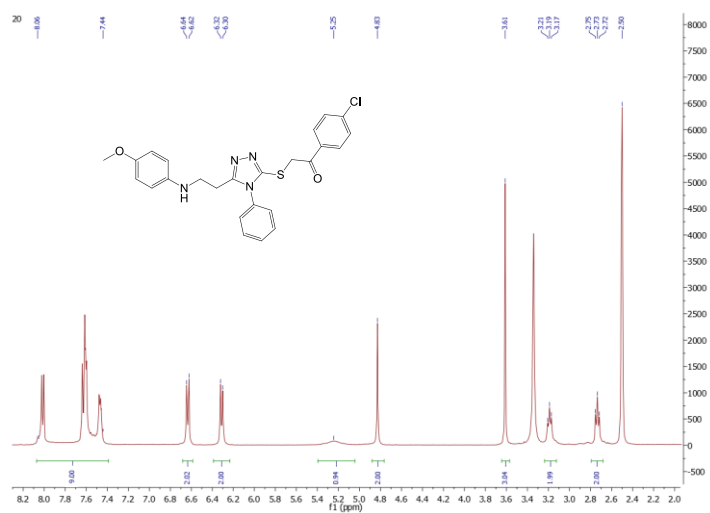


Figure S58. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 20

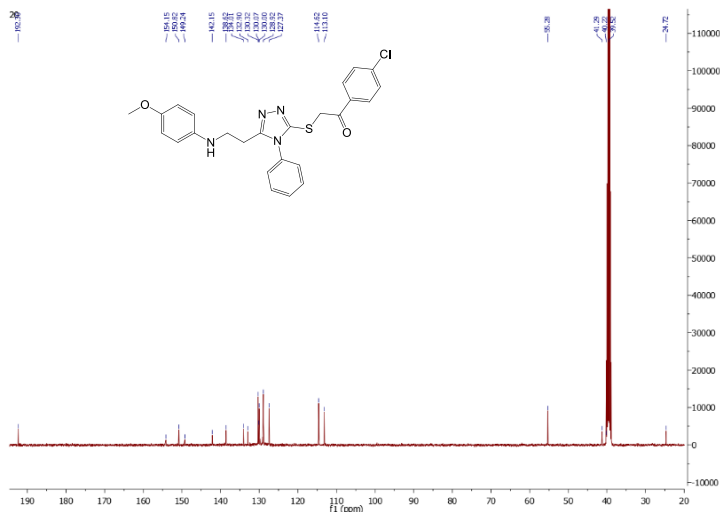


Figure S59. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 20

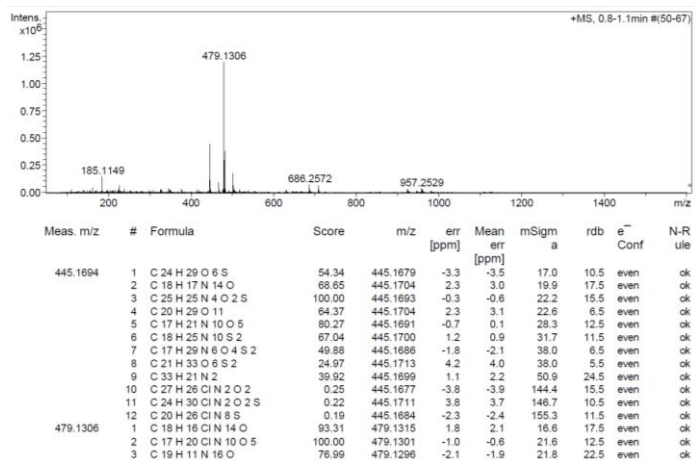


Figure S60. HRMS spectrum of 20

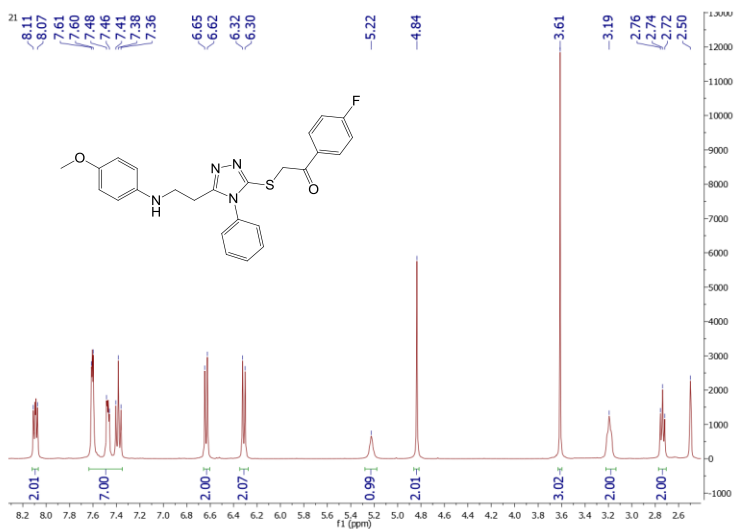


Figure S61. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **21**

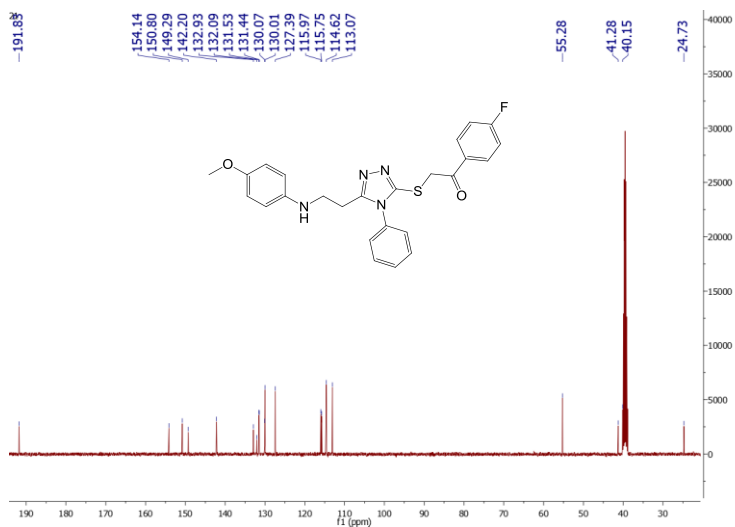


Figure S62. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **21**

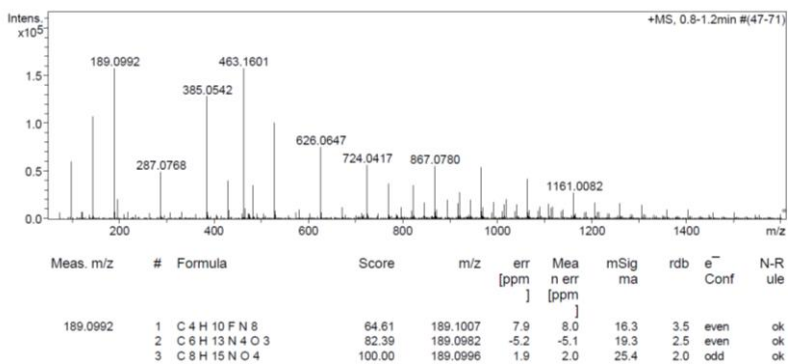


Figure S63. HRMS spectrum of **21**

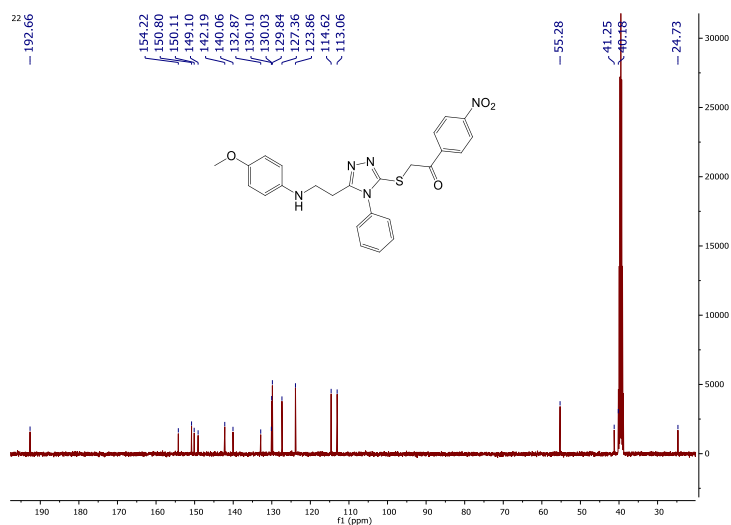


Figure S64. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 22

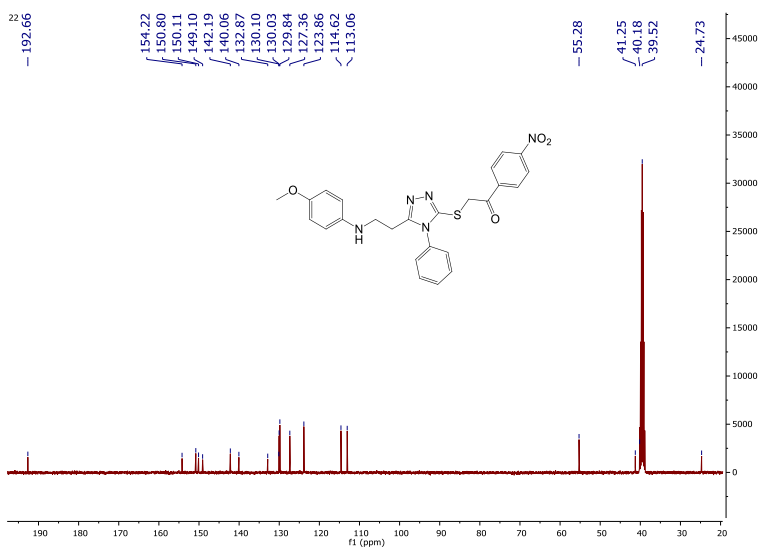


Figure S65. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 22

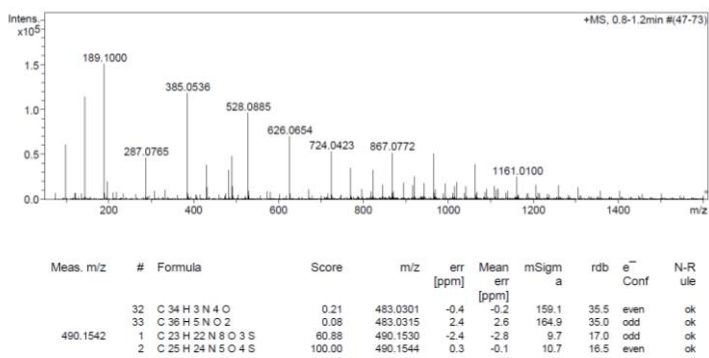


Figure S66. HRMS spectrum of 22

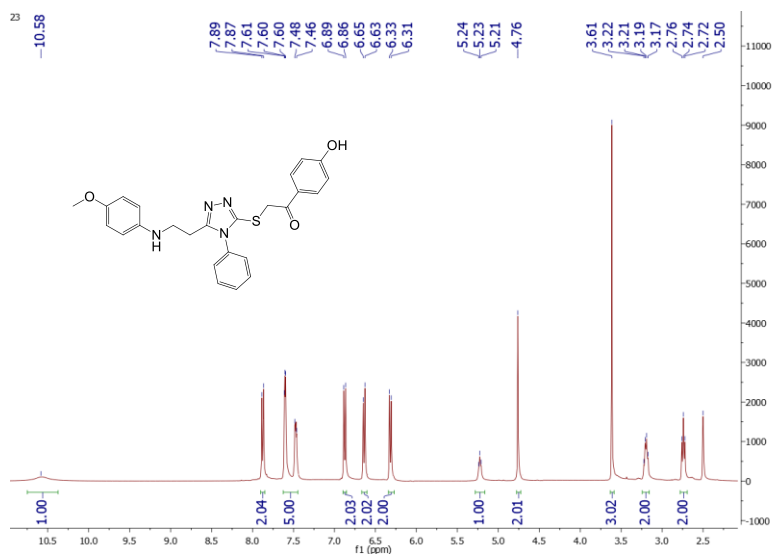


Figure S67. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 23

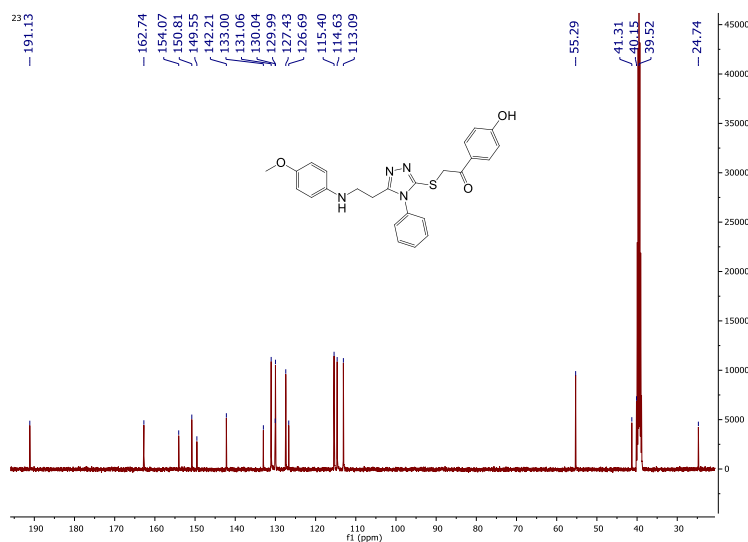


Figure S68. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 23

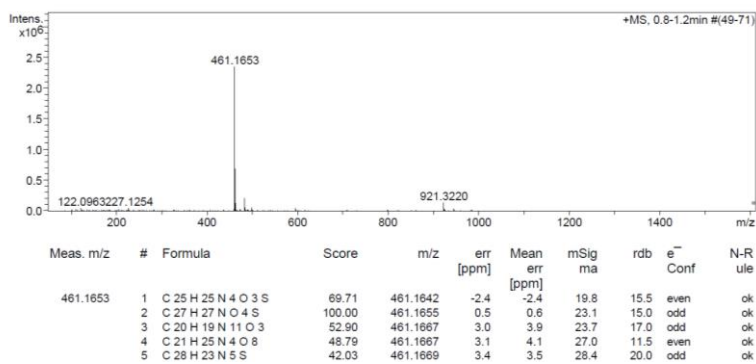


Figure S69. HRMS spectrum of 23

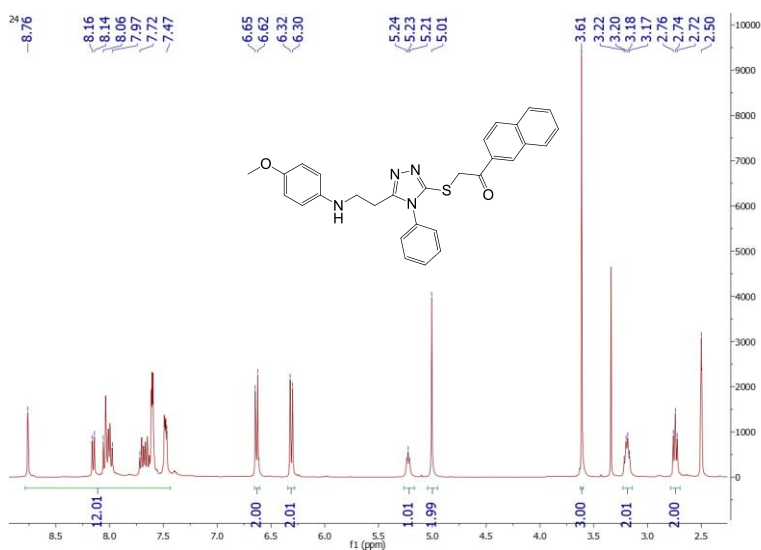


Figure S70. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **24**

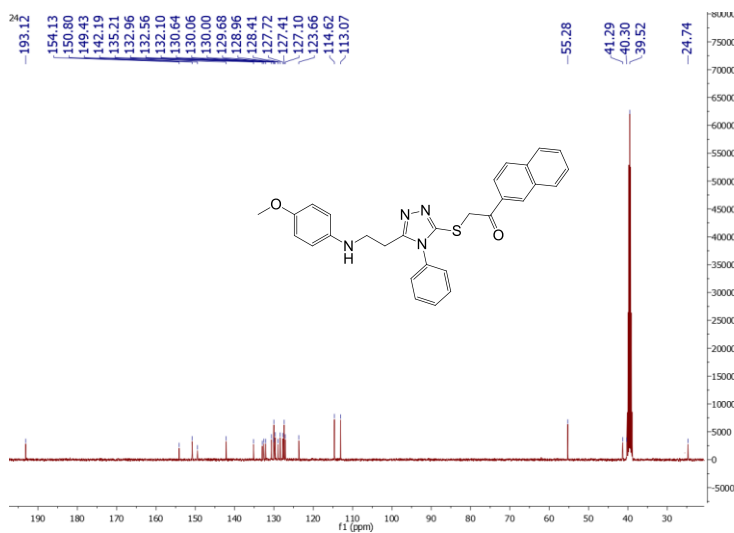


Figure S71. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **24**

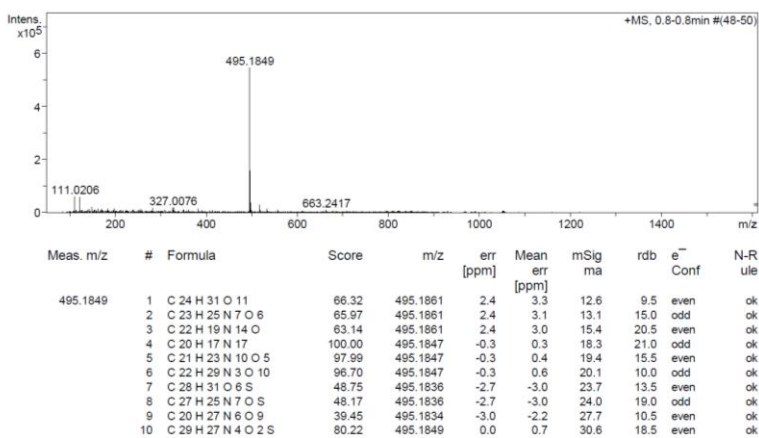


Figure S72. HRMS spectrum of **24**

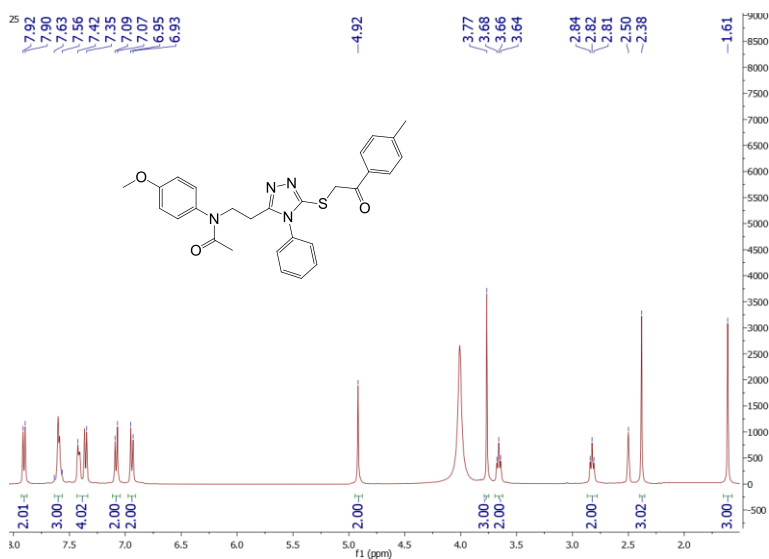


Figure S73. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 25

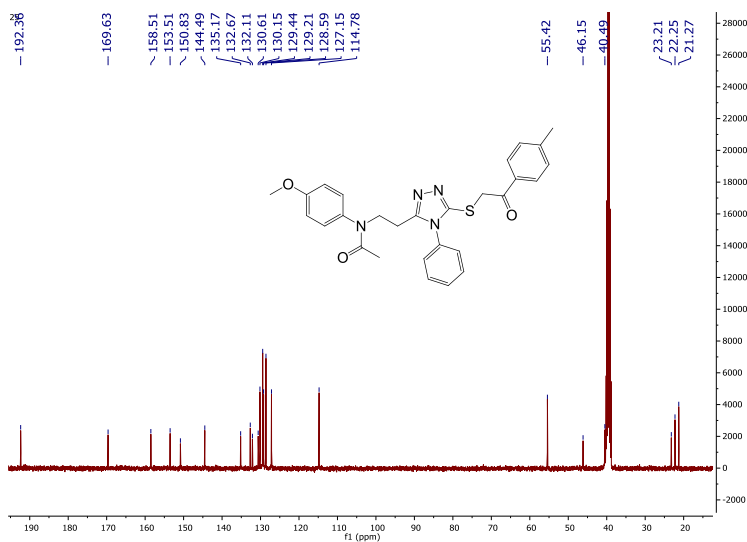


Figure S74. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 25

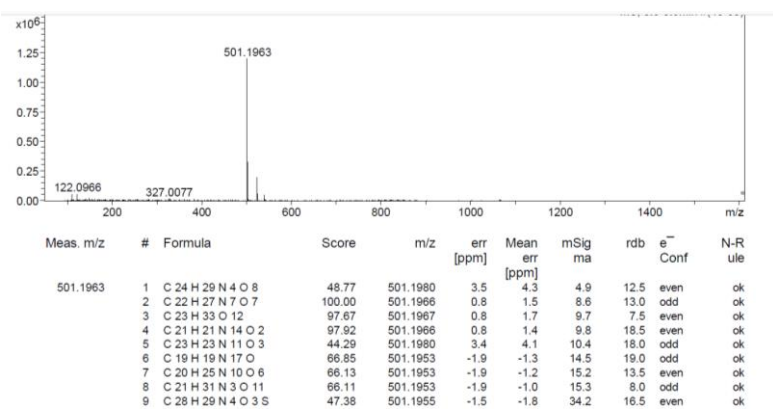


Figure S75. HRMS spectrum of 25

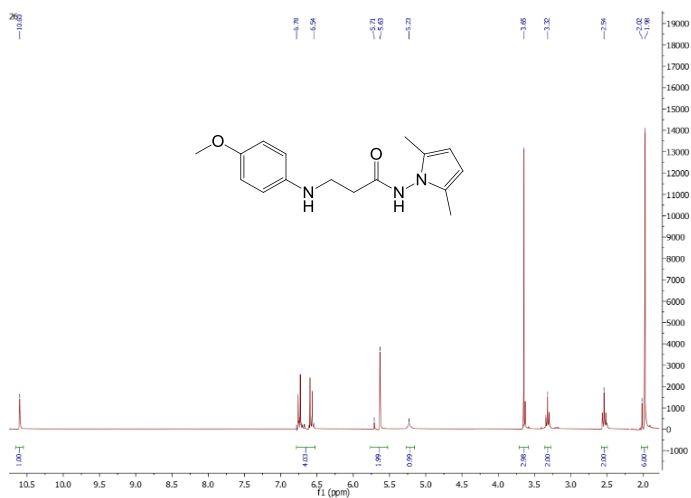


Figure S76. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **26**

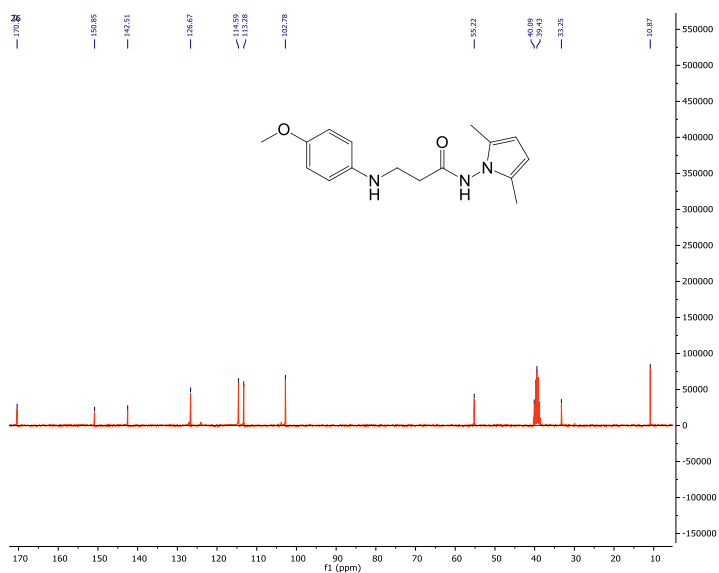


Figure S77. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **26**

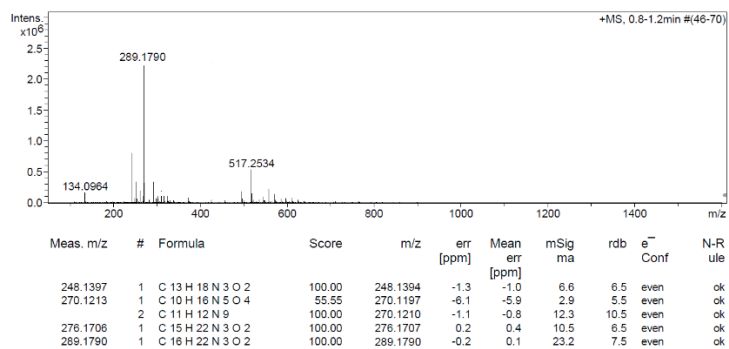


Figure S78. HRMS spectrum of **26**

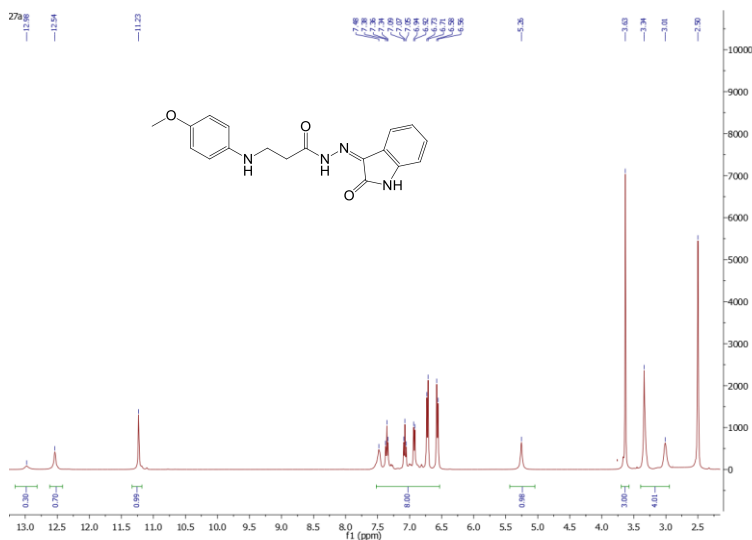


Figure S79. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **27a**

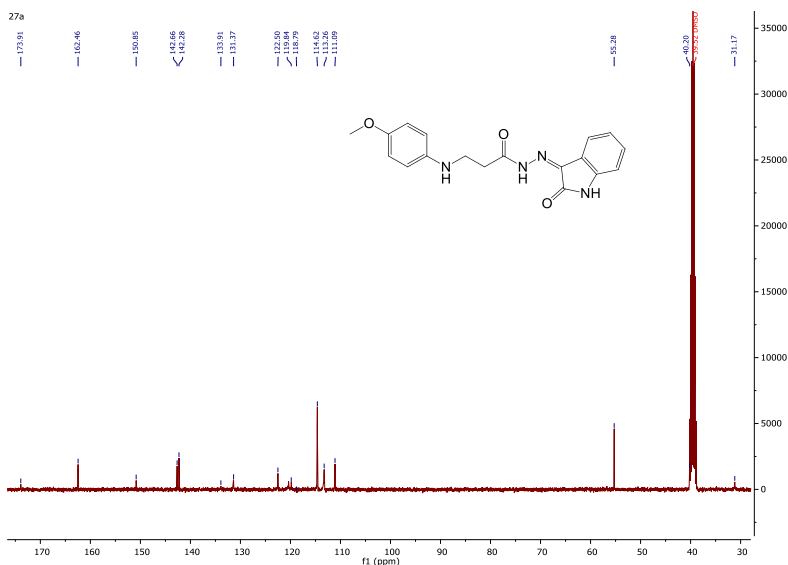


Figure S80. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **27a**

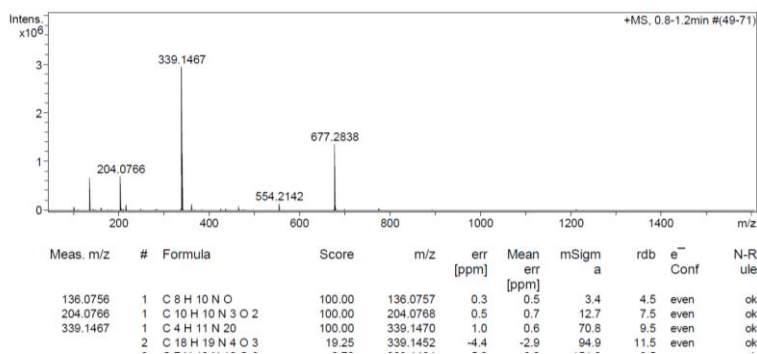


Figure S81. HRMS spectrum of **27a**

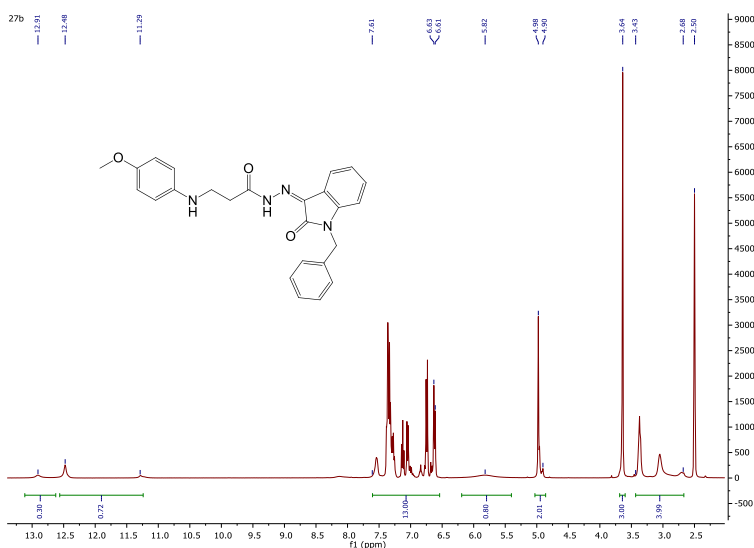


Figure S82. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 27b

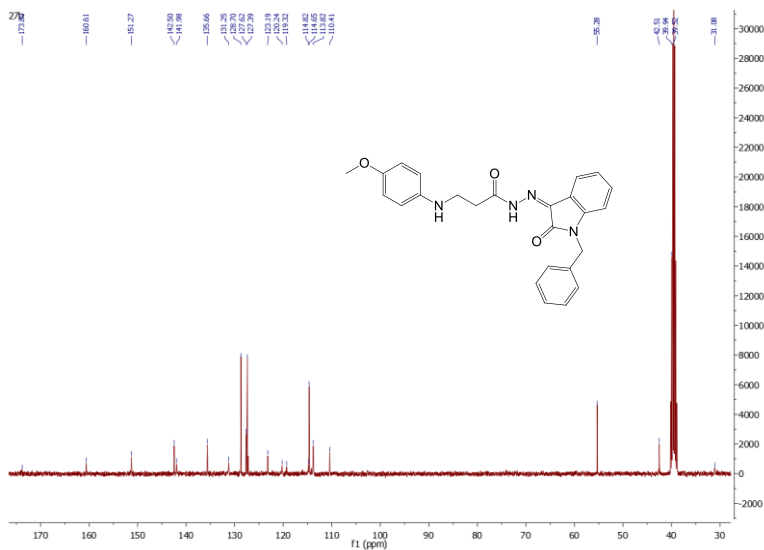


Figure S83. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 27b

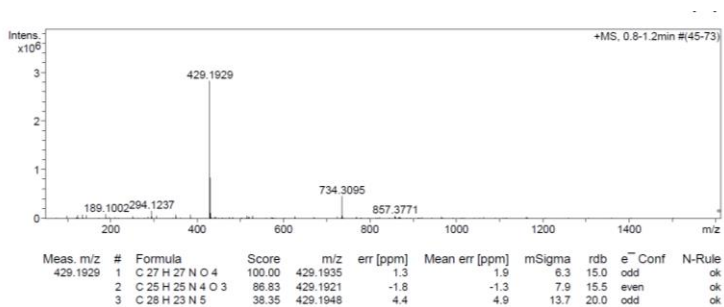


Figure S84. HRMS spectrum of 27b

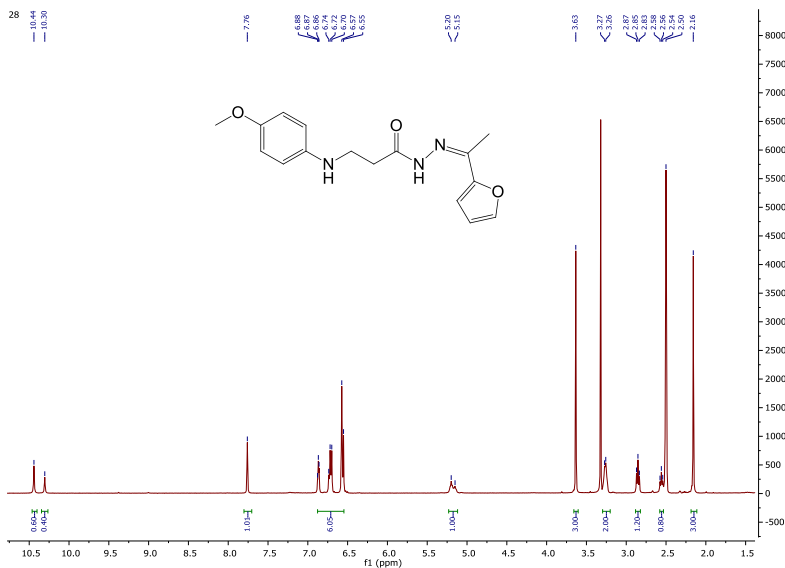


Figure S85. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 28

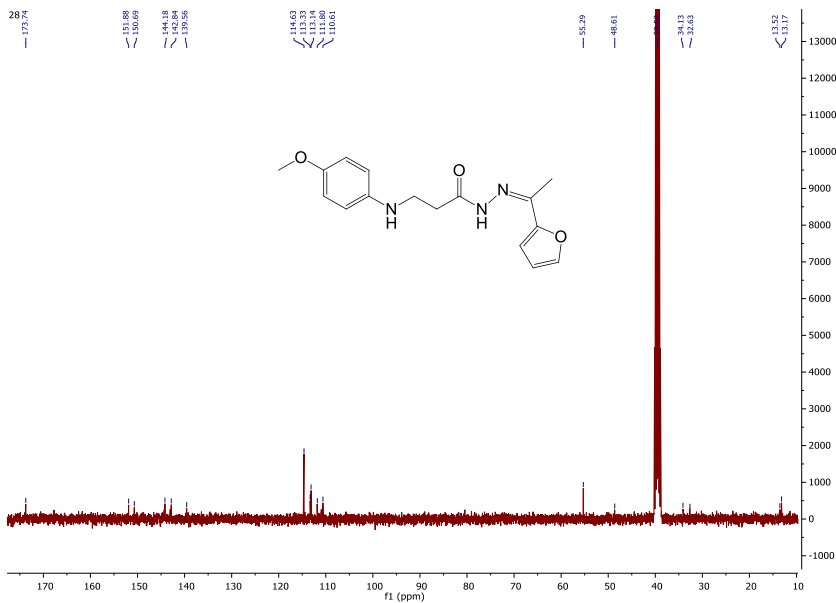


Figure S86. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 28

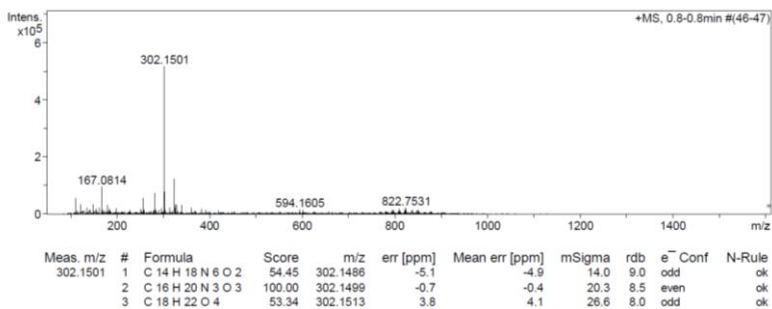


Figure S87. HRMS spectrum of 28

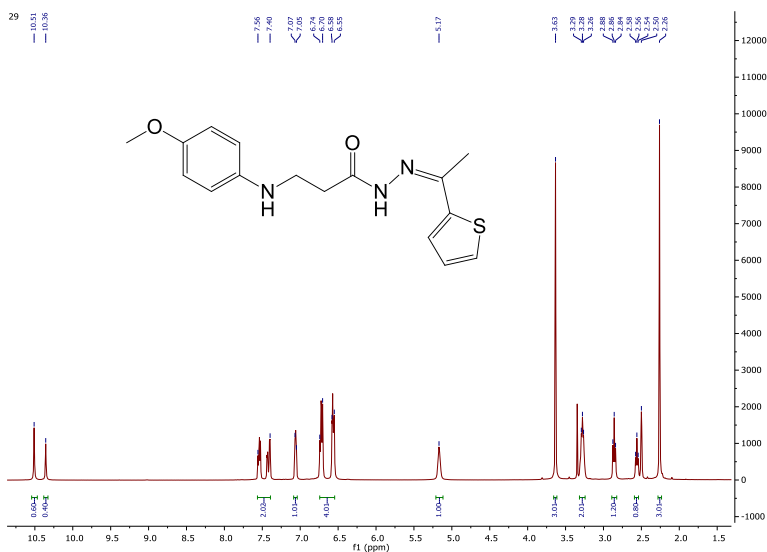


Figure S88. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 29

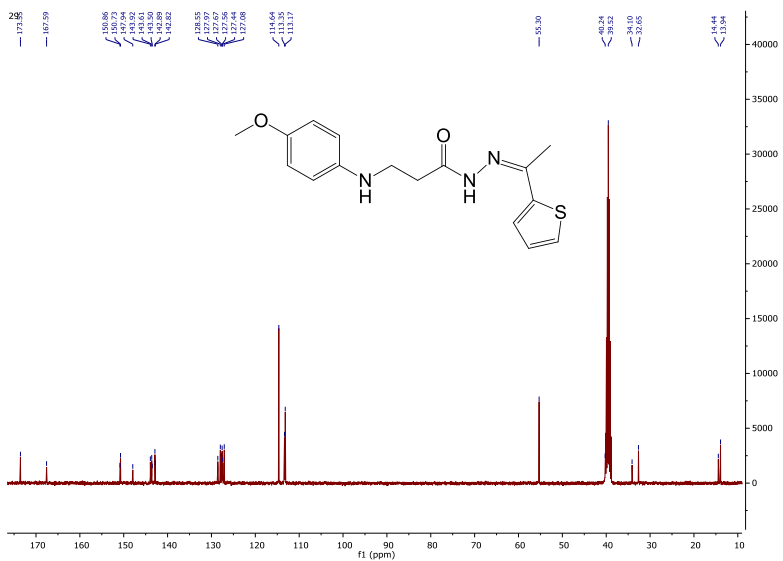


Figure S89. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 29

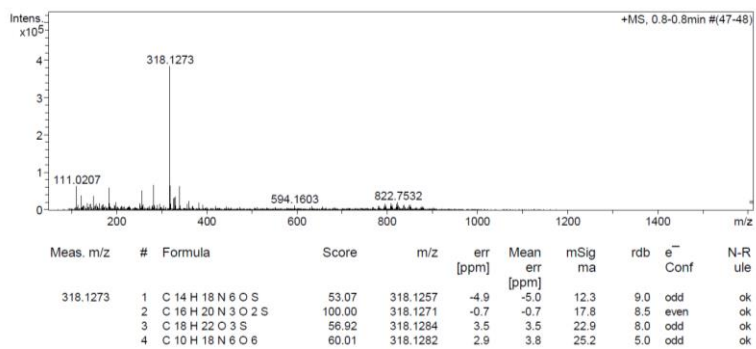


Figure S90. HRMS spectrum of 29

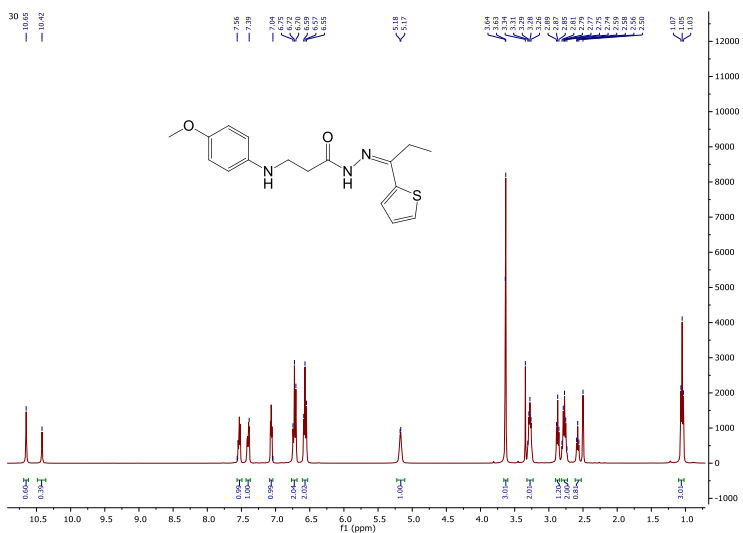


Figure S91. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 30

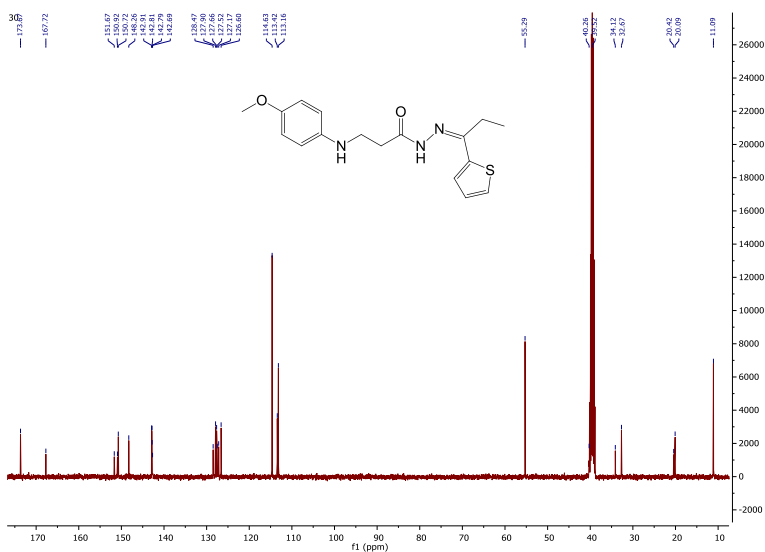


Figure S92. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 30

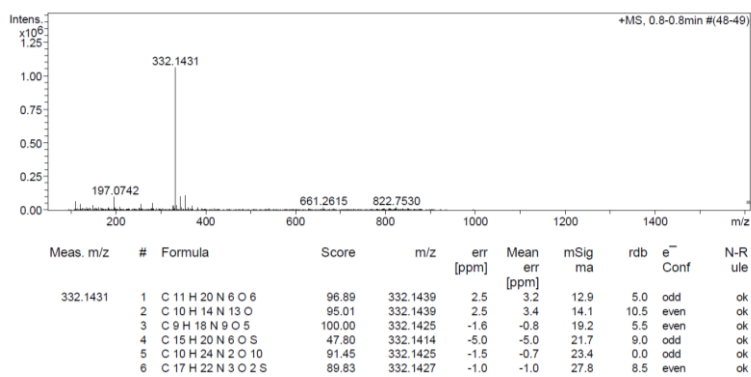


Figure S93. HRMS spectrum of 30

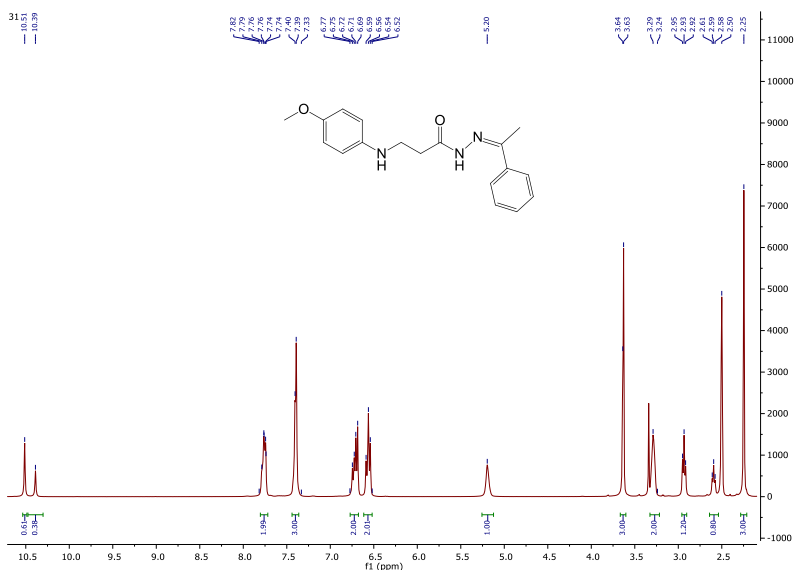


Figure S94. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 31

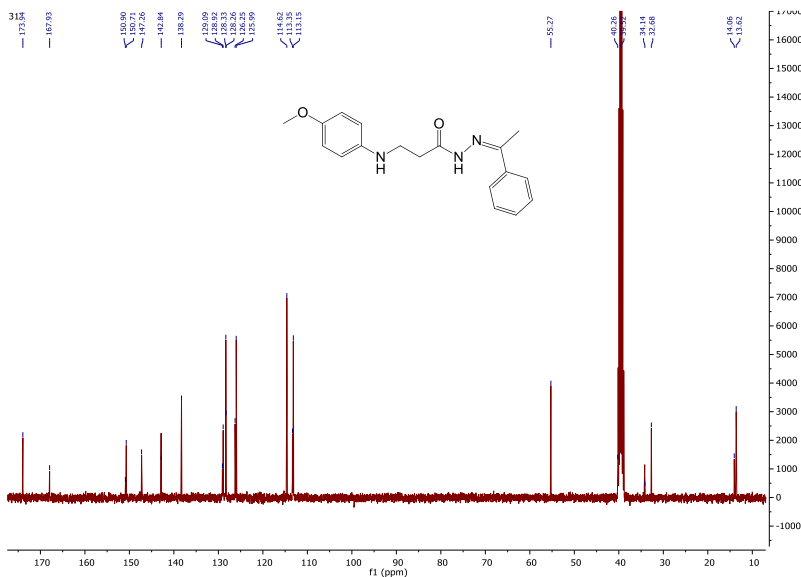


Figure S95. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 31

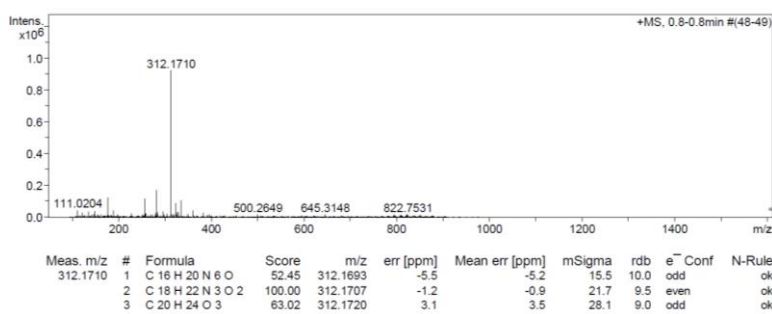


Figure S96. HRMS spectrum of 31

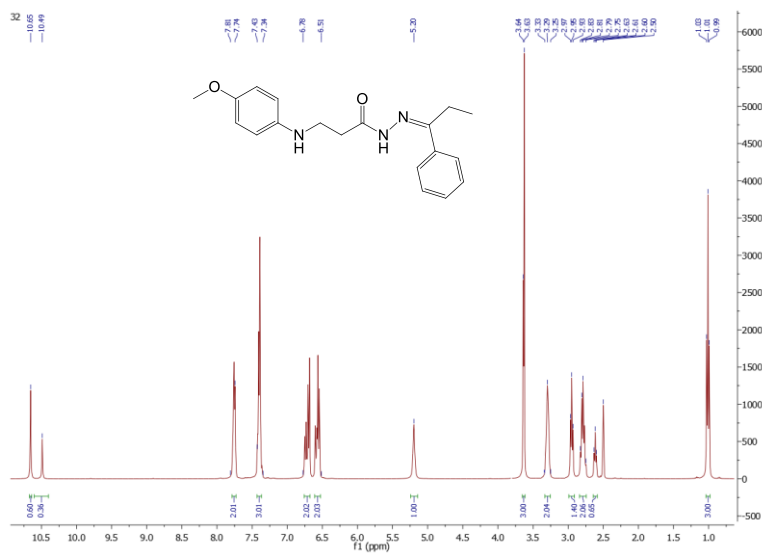


Figure S97. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of **32**

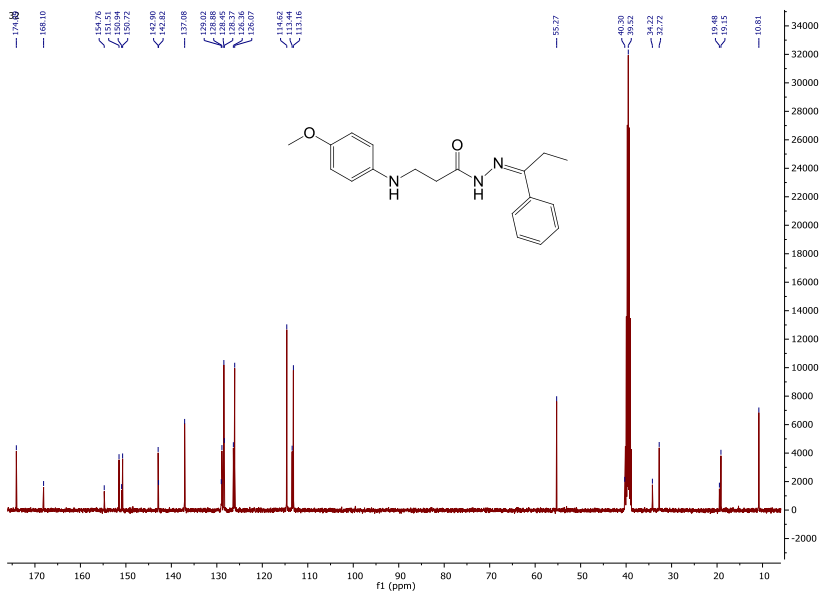


Figure S98. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of **32**

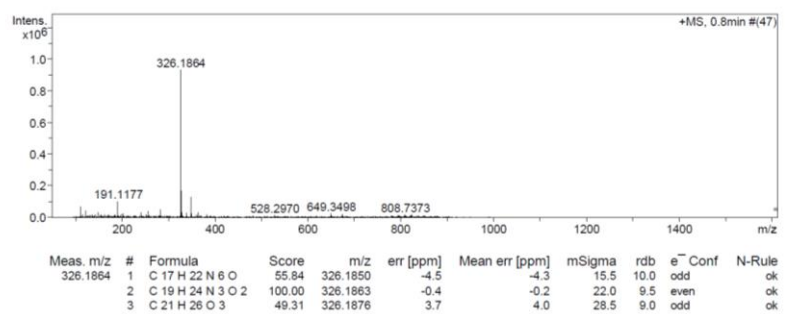


Figure S99. HRMS spectrum of **32**

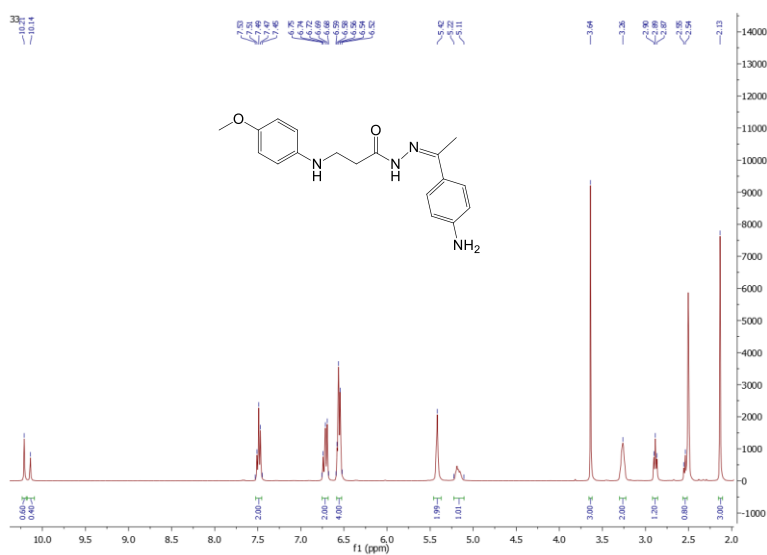


Figure S100. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 33

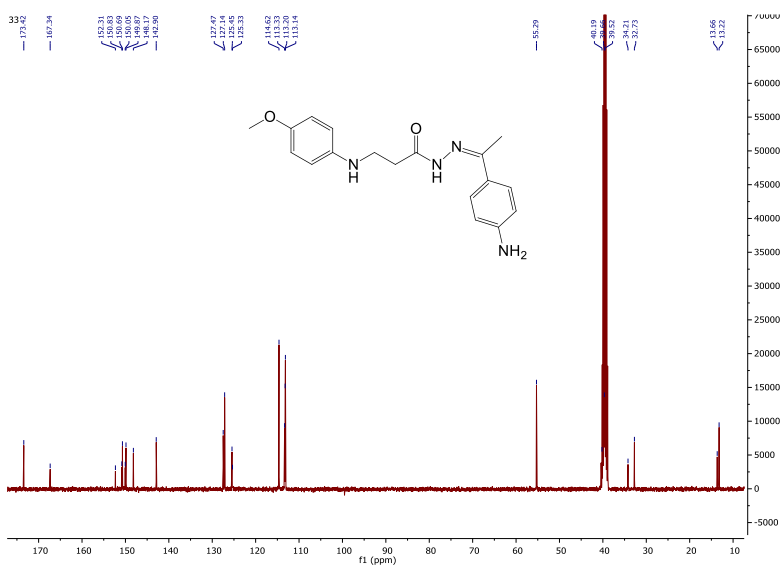


Figure S101. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 33

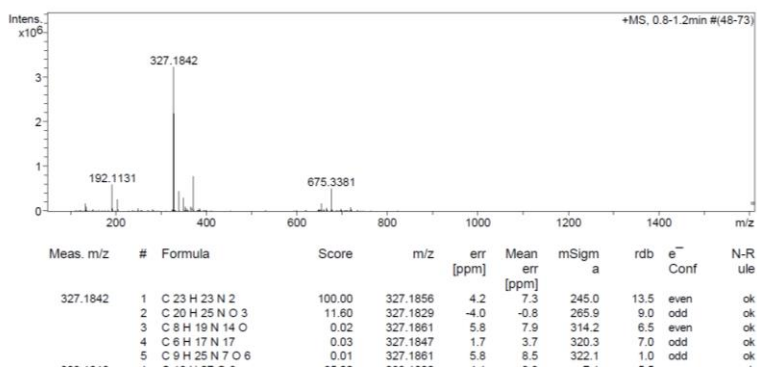
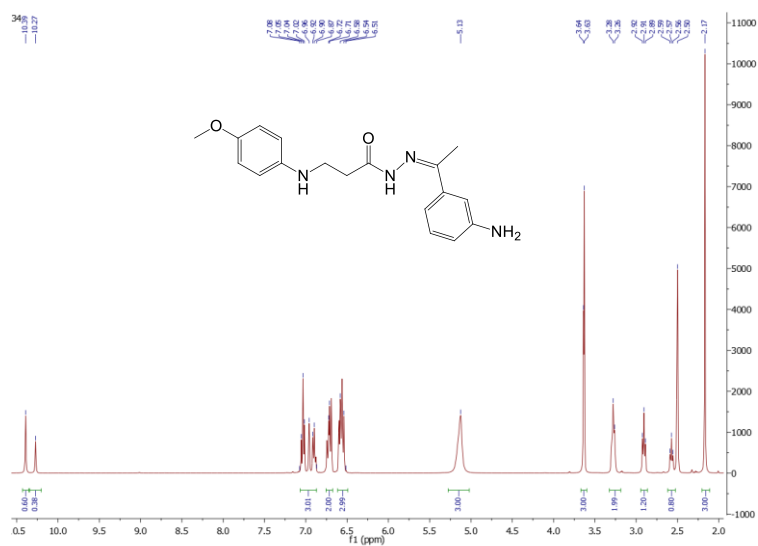


Figure S102. HRMS spectrum of 33



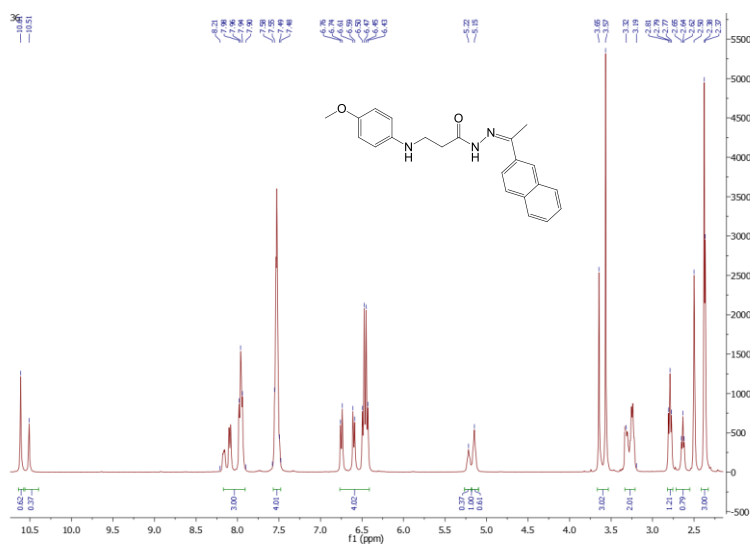


Figure S109. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 36

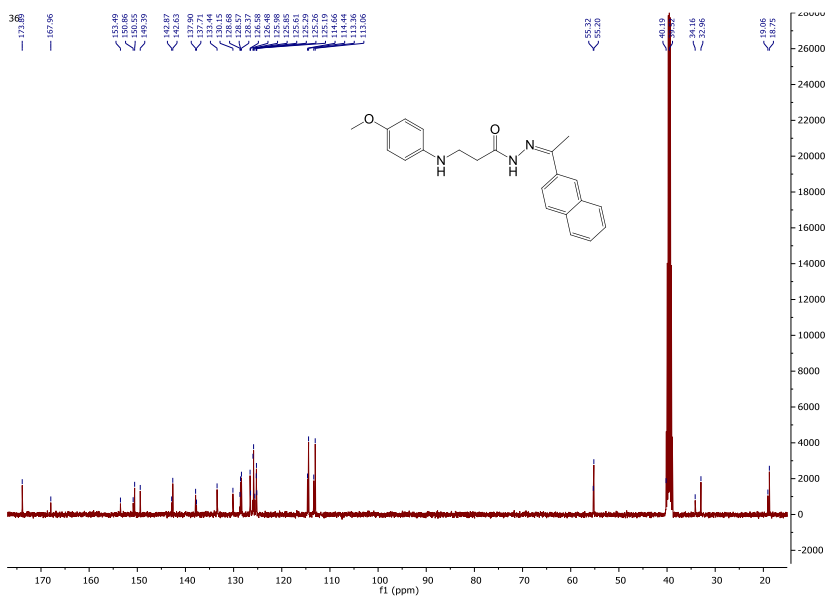


Figure S110. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 36

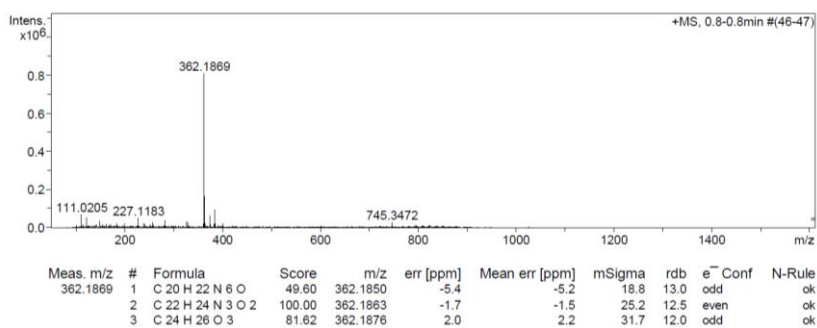


Figure S111. HRMS spectrum of 36

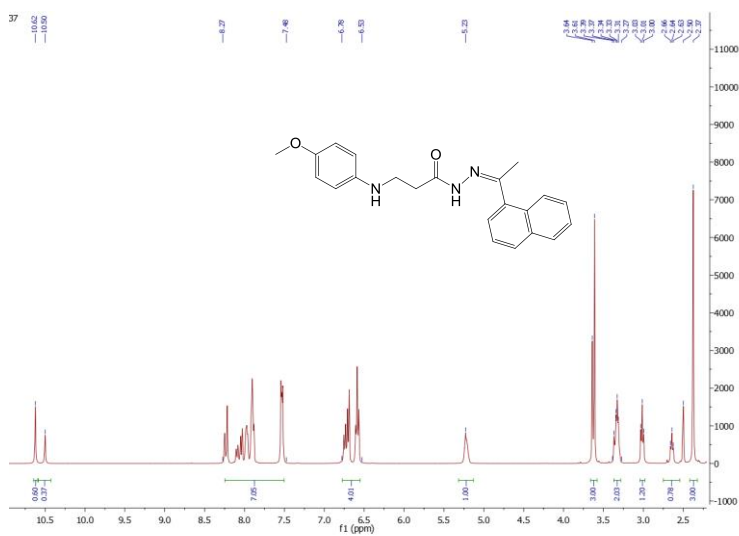


Figure S112. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 37

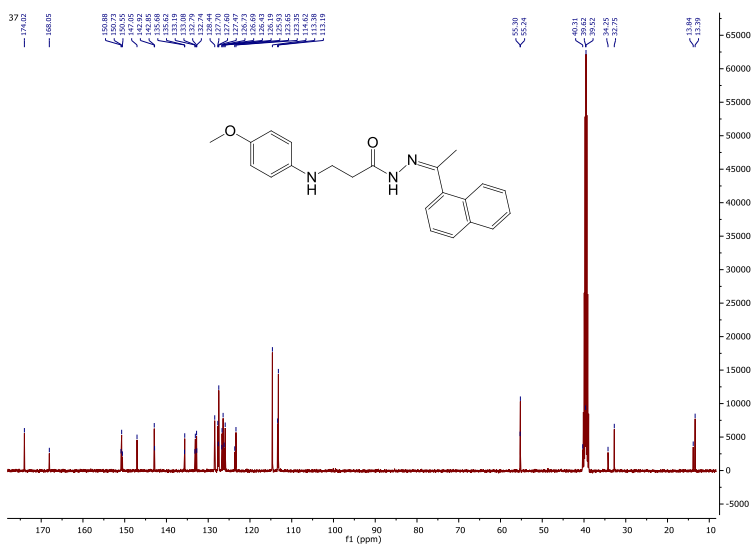


Figure S113. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of 37

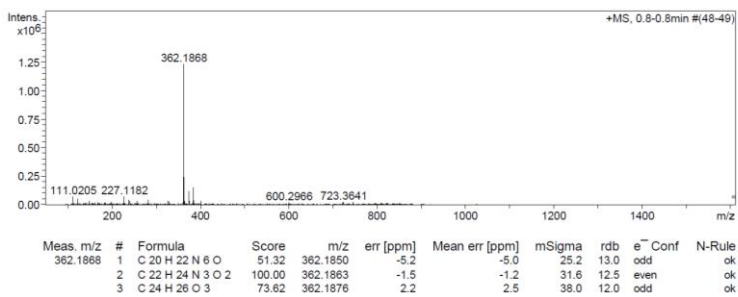


Figure S114. HRMS spectrum of 37

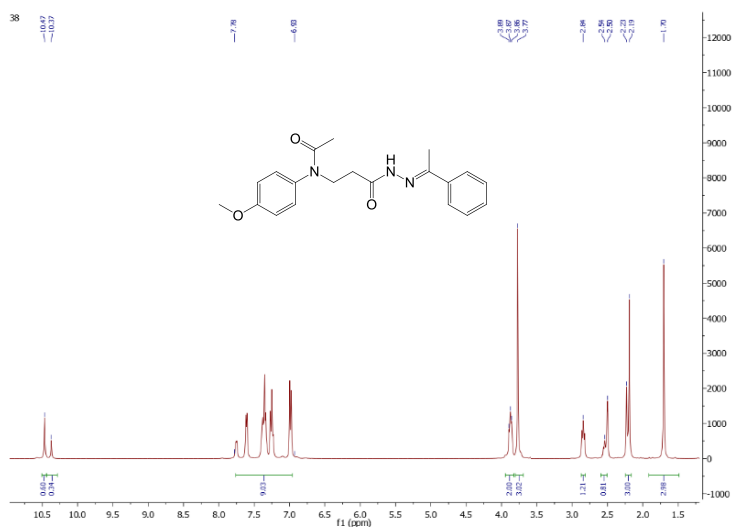


Figure S115. ¹H-NMR (400 MHz, DMSO-*d*₆) spectrum of 38

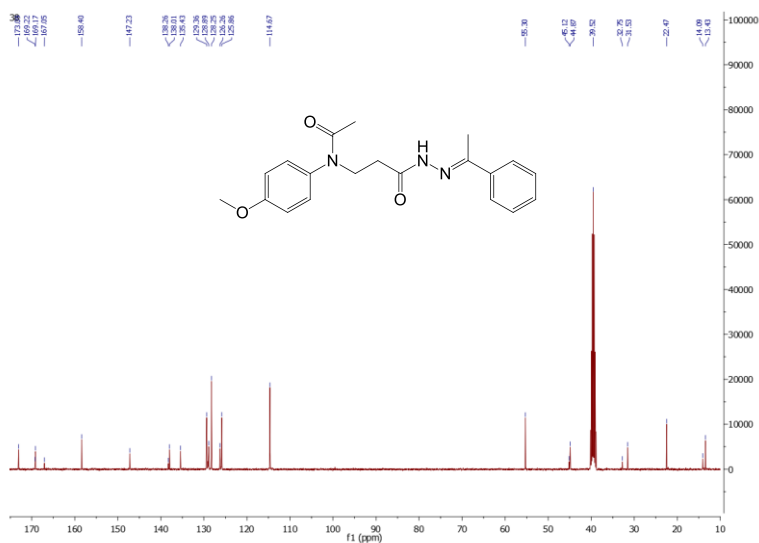


Figure S116. ¹³C-NMR (400 MHz, DMSO-*d*₆) spectrum of 38

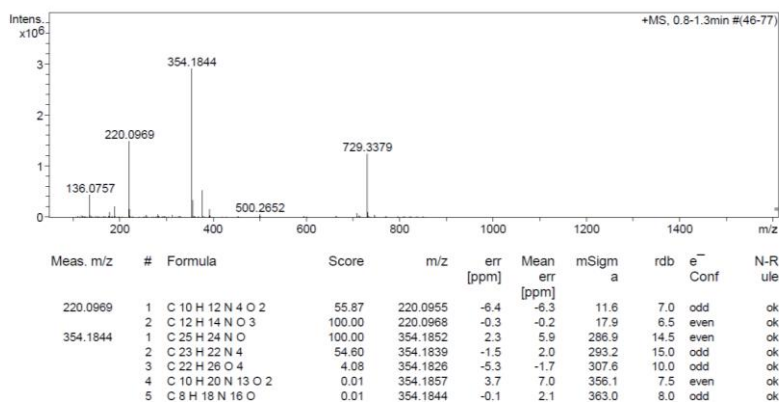


Figure S117. HRMS spectrum of 38

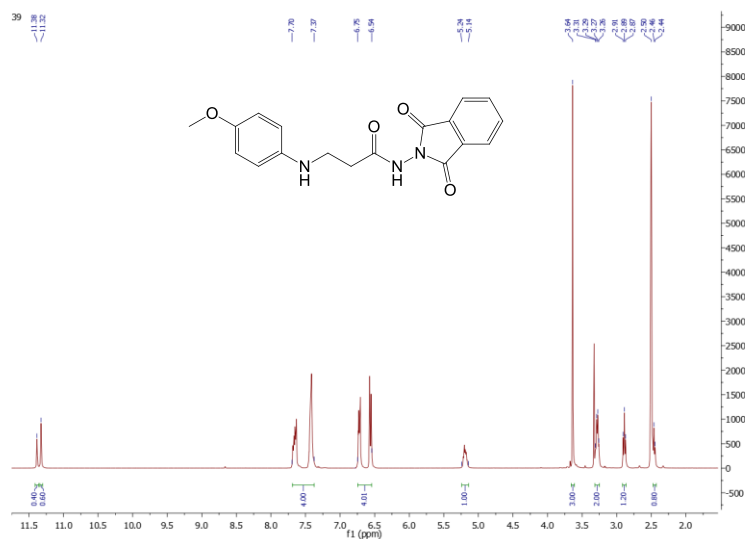


Figure S118. $^1\text{H-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **39**

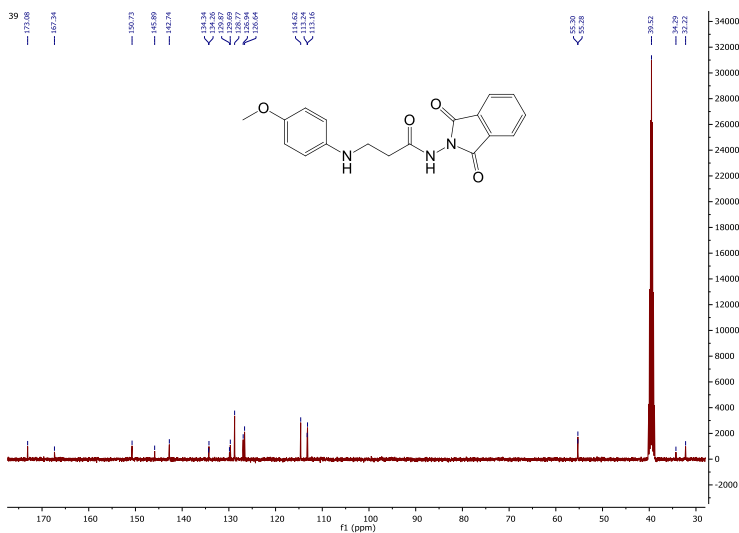


Figure S119. $^{13}\text{C-NMR}$ (400 MHz, $\text{DMSO-}d_6$) spectrum of **39**

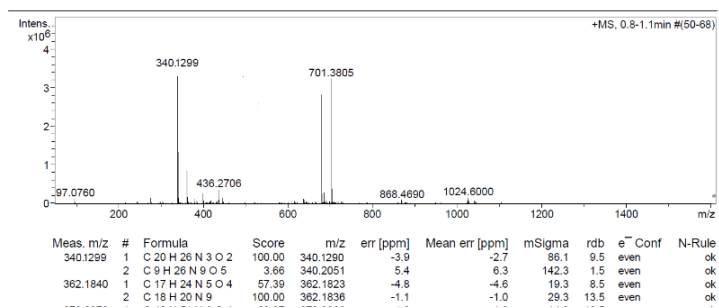


Figure S120. HRMS spectrum of **39**